

From: Amanda Scholes on behalf of Planning.Responses
Sent: 07 January 2021 11:07
To: Planning Scanning
Subject: FW: Pevensey Road, BR/277/20/DOC

Amanda Scholes | Receptionist, Department, Arun District Council | Location: Ground Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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Save the environment - think before you print.

From: Maria Tomalova <Maria.Tomalova@arun.gov.uk>
Sent: 06 January 2021 17:31
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Subject: FW: Pevensey Road, BR/277/20/DOC

Please upload the below to the above application; Drainage Engineers comments.

Maria Tomalova | Senior Planning Officer, Directorate of Place, Arun District Council | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37510 | External: +44 (0) 1903 737510 | E-mail: maria.tomalova@arun.gov.uk



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Save the environment - think before you print.

From: Laura Gibbons <laura.gibbons@adur-worthing.gov.uk>
Sent: 05 January 2021 08:39
To: Elvin Gomery [REDACTED]
Cc: Stuart Bone [REDACTED]; Maria Tomalova <Maria.Tomalova@arun.gov.uk>
Subject: Re: Pevensey Road

Hi Elvin,

Thanks for sending this through. Comments in *blue*.

1. FEH rainfall or a Cv of 1 must be applied to calculations. *Adjusted for a cv = 1.0 okay*
2. Nodes and pipe numbers should be labelled on plan to correspond with the modelled network to facilitate review. The flow file would also help my review, if possible please include this in your revised package of information. I have included the model sketch below and enclosed my FLOW file. *okay*.
3. I note a flow through pond structure has been modelled with an area of 487m², it is presumed this has been modelled to replicate the crates under the permeable paving. *Correct Please confirm this area is provided on the drawing. Yes correct but a set area of 106.4m³ storage has been set i the model. Ideally please supply the drawing in dwg format to enable independent paperless verification. Attached as requested okay.*
4. The flow through pond structure is not entirely representative of reality as a roughness value and slope is being applied. Please consider modelling as a storage structure or permeable paving with a porosity of 0.95. A porosity of 0.95 has already been set and a representative manning number has been used, I discussed this with Causeway. *Not standard practice, but we will accept on this occasion.*
5. I note that the invert level of the outlet is 5.8m, yet the base level of the storage is 5.85. Please detail how this is going to work. *Adjusted to 5.85 Please adjust on drawing.*
6. The invert level, cover level and unit reference of the hydrobrake must be referenced on both the plan and construction detail drawings and be consistent with that in calculations. See this has been added to the drawing *Unit reference now okay on detail, please add invert and cover level. Please include invert, cover level and reference on layout drawing and remove the reference to a polypipe control.*
7. Please provide construction detail drawings which show the means of connection to and from the sub-base. These are shown on detail drawing 101P4 and are standard permavoid details. *Please add note to indicate that the invert level of connection is stated on layout, otherwise all pipes (including outlet) may be set in the middle of the storage. Which is not what you have modelled.*
8. The invert level of the existing system that you propose to connect to must be known. This can be confirmed during the works once we have your approval to proceed, conservative estimates have currently been assumed. *We must know this now, this will also be required for land drainage consent, which must be obtained prior to construction.*
9. You will need to provide flow exceedance drawings, details of the means of connection to the culverted watercourse, and an impermeable area diagram. We can provide these as requested in due course perhaps once you have agreed the above items and model. Could you please also let us know any other information you are going to add onto the request that **were** not originally asked for as the developer will need to know ongoing consultant fees. *As always, the information we require is indicated within our checklist. Please ensure all of this information is provided, including the exceedance drawing.*

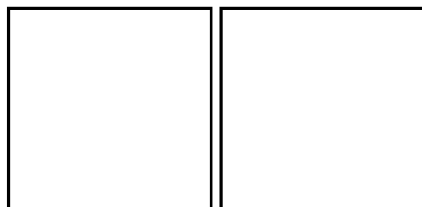
Kind regards,

Laura Gibbons

Engineer, Adur & Worthing Councils



Hall, Chapel Road, Worthing, West Sussex, BN11 1HA

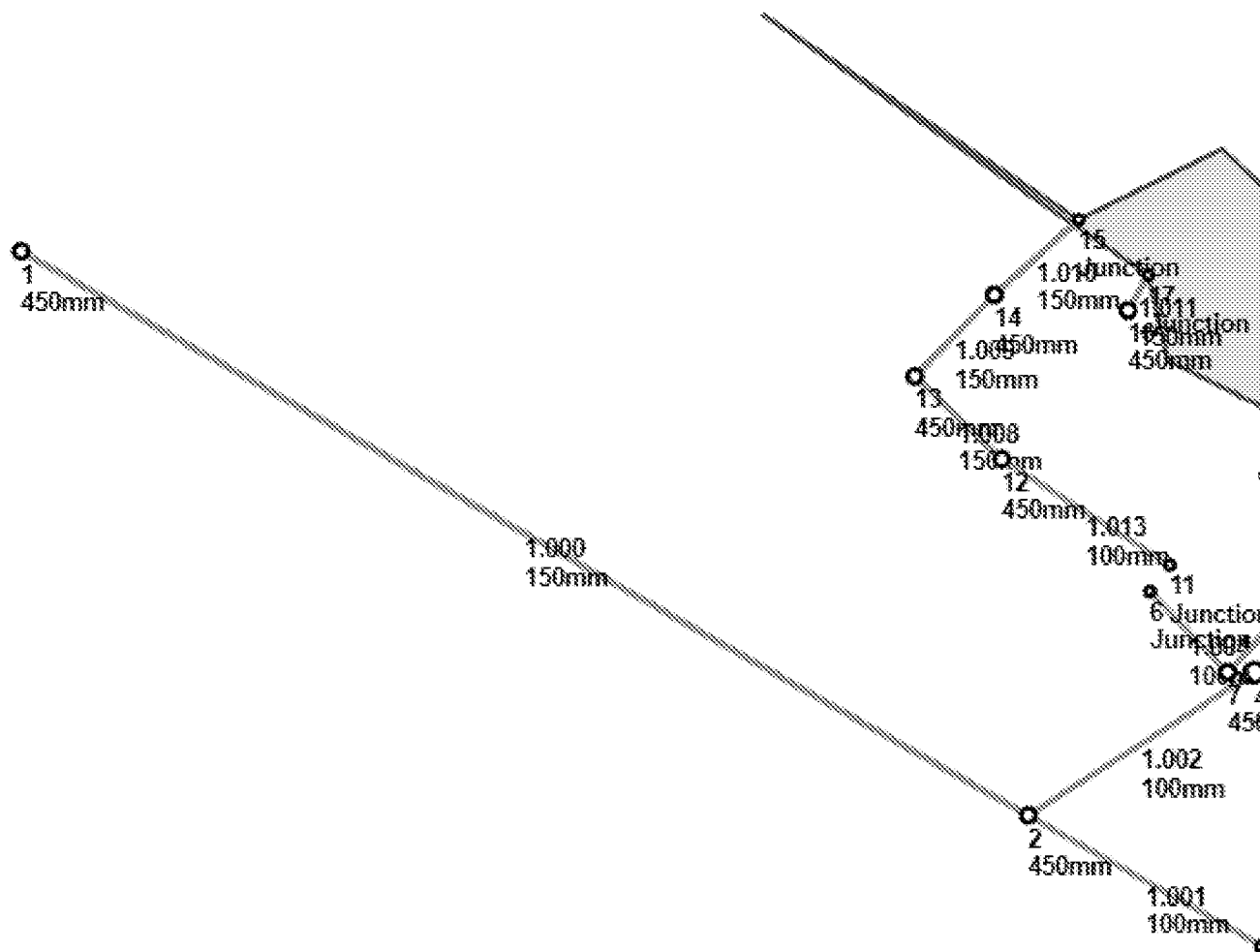


On Wed, 16 Dec 2020 at 09:38, Elvin Gomery <[REDACTED]> wrote:

Morning Laura

Please see comments below relating to your email:

1. FEH rainfall or a Cv of 1 must be applied to calculations. Adjusted for a cv = 1.0
2. Nodes and pipe numbers should be labelled on plan to correspond with the modelled network to facilitate review. The flow file would also help my review, if possible please include this in your revised package of information. I have included the model sketch below and enclosed my FLOW file.
3. I note a flow through pond structure has been modelled with an area of 487m², it is presumed this has been modelled to replicate the crates under the permeable paving. Correct Please confirm this area is provided on the drawing. Yes correct but a set area of 106.4m³ storage has been set in the model. Ideally please supply the drawing in dwg format to enable independent paperless verification. Attached as requested
4. The flow through pond structure is not entirely representative of reality as a roughness value and slope is being applied. Please consider modelling as a storage structure or permeable paving with a porosity of 0.95. A porosity of 0.95 has already been set and a representative manning number has been used, I discussed this with Causeway
5. I note that the invert level of the outlet is 5.8m, yet the base level of the storage is 5.85. Please detail how this is going to work. Adjusted to 5.85
6. The invert level, cover level and unit reference of the hydrobrake must be referenced on both the plan and construction detail drawings and be consistent with that in calculations. See this has been added to the drawing
7. Please provide construction detail drawings which show the means of connection to and from the sub-base. These are shown on detail drawing 101P4 and are standard permavoid details.
8. The invert level of the existing system that you propose to connect to must be known. This can be confirmed during the works once we have your approval to proceed, conservative estimates have currently been assumed.
9. You will need to provide flow exceedance drawings, details of the means of connection to the culverted watercourse, and an impermeable area diagram. We can provide these as requested in due course perhaps once you have agreed the above items and model. Could you please also let us know any other information you are going to add onto the request that were not originally asked for as the developer will need to know ongoing consultant fees.



Regards

Elvin Gomery



For and on behalf of Cowan Consultancy Ltd.



COWAN CONSULTANCY LTD

3 Turnberry House - 4400 Parkway - Whiteley - Fareham - Hampshire - PO15 7FJ



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Registered Address : 3 Turnberry House, 4400 Parkway, Whiteley, Fareham, Hampshire, PO15 7FJ.

From: Laura Gibbons [mailto:laura.gibbons@adur-worthing.gov.uk]

Sent: 15 December 2020 11:39

To: Elvin Gomery [REDACTED]

Cc: Stuart Bone <[REDACTED]> Maria Tomalova <maria.tomalova@arun.gov.uk>

Subject: Re: Pevensey Road

Hi Elvin,

I have the following comments:

1. FEH rainfall or a Cv of 1 must be applied to calculations.
2. Nodes and pipe numbers should be labelled on plan to correspond with the modelled network to facilitate review. The flow file would also help my review, if possible please include this in your revised package of information.
3. I note a flow through pond structure has been modelled with an area of 487m², it is presumed this has been modelled to replicate the crates under the permeable paving. Please confirm this area is provided on the drawing. Ideally please supply the drawing in dwg format to enable independent paperless verification.
4. The flow through pond structure is not entirely representative of reality as a roughness value and slope is being applied. Please consider modelling as a storage structure or permeable paving with a porosity of 0.95.
5. I note that the invert level of the outlet is 5.8m, yet the base level of the storage is 5.85. Please detail how this is going to work.
6. The invert level, cover level and unit reference of the hydrobrake must be referenced on both the plan and construction detail drawings and be consistent with that in calculations.
7. Please provide construction detail drawings which show the means of connection to and from the sub-base.
8. The invert level of the existing system that you propose to connect to must be known.
9. You will need to provide flow exceedance drawings, details of the means of connection to the culverted watercourse, and an impermeable area diagram.

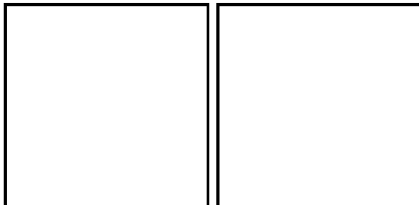
Kind regards,

Laura Gibbons

Engineer, Adur & Worthing Councils



Address: Facilities & Technical Services, Worthing Town Hall, Chapel Road, Worthing, West Sussex, BN11 1HA



On Fri, 11 Dec 2020 at 09:46, Elvin Gomery [REDACTED] wrote:

Hi Laura

Please find attached updated drawings and calculations from the model in Causeway flow. I think this should give you the information you asked for.

Let me know if you want to discuss anything.

Regards

Elvin Gomery



For and on behalf of Cowan Consultancy Ltd.



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From: Laura Gibbons [mailto:laura.gibbons@adur-worthing.gov.uk]
Sent: 24 November 2020 08:53
To: Elvin Gomery <[REDACTED]>
Subject: Pevensey Road

Hi Elvin,

I have had a quick look over your spreadsheet and I can confirm that we do require full network calculations, e.g. MicroDrainage or Flow.

As indicated previously we need to see details of the proposed flow control. Your calculations do not take this into consideration. The head of water at the point of flow control is fundamental to establishing the flow through it.

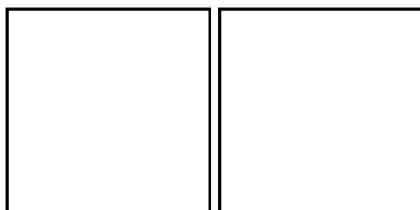
I have also indicated previously that a surcharged outfall should be applied, again your calculations do not do this. Considering the nature of the system it is considered likely that the ordinary watercourse you propose to discharge to will be at capacity during significant events.

Your calculations do not establish depth of water at nodes, this is required on a site of this sensitivity.

Kind regards,

Laura Gibbons
Engineer, Adur & Worthing Councils

[REDACTED]
Address: Facilities & Technical Services, Worthing Town Hall, Chapel Road, Worthing, West Sussex, BN11 1HA



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