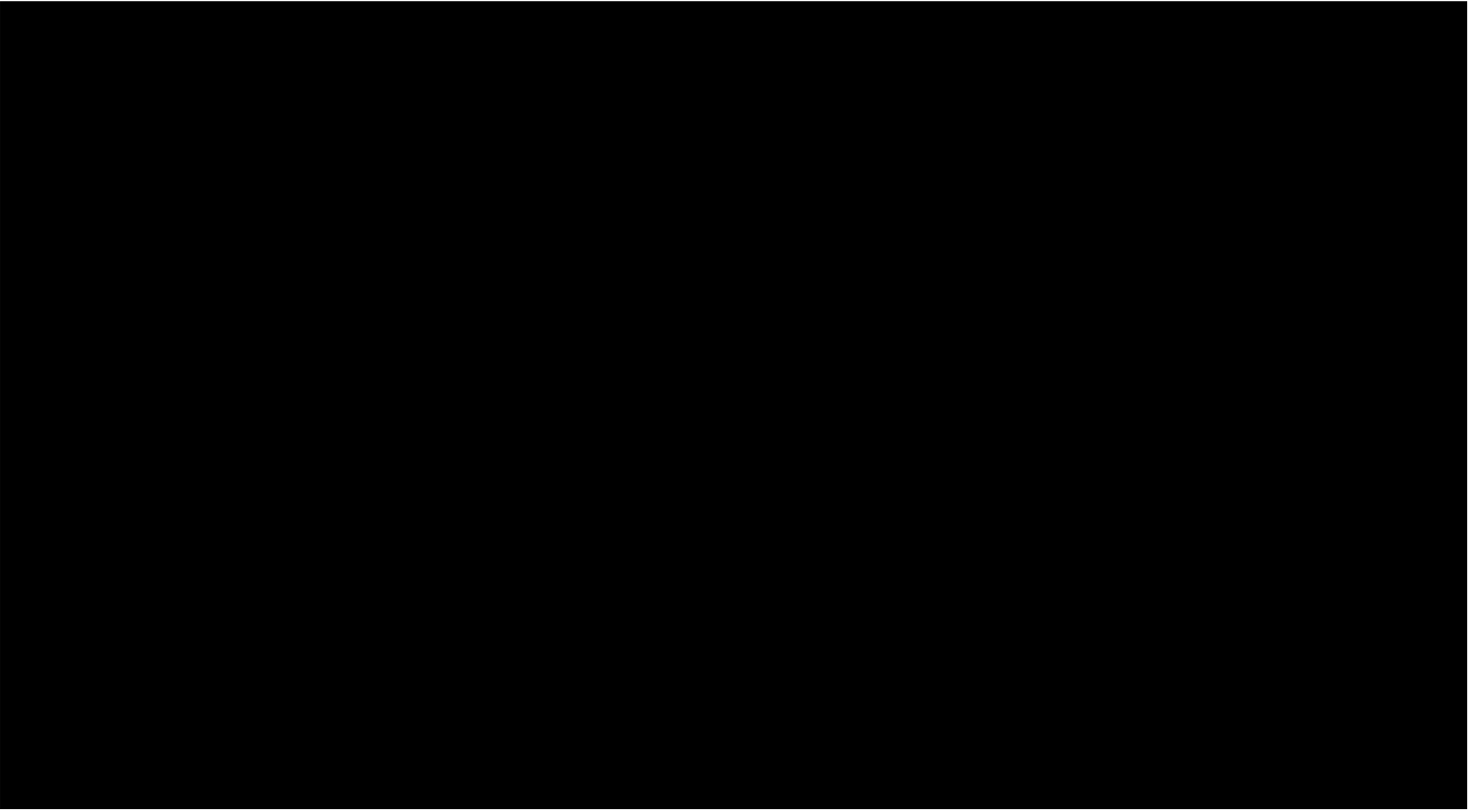




From: kazys [REDACTED]
Sent: 23 May 2017 20:08
To: Paul Cann
Cc: 'Alastair Dineen'; Simon Davis; 'Ian Sellar'; Simon Davis
Subject: Pagham Road, Pagham: Pagham Ditch; P/125/14/PL

Paul

Following on from your e-mail and comments please find attached a revised engineering drawing showing the proposed outfalls and ditch details.
I believe all your comments have been incorporated so could you please confirm that you will now be in a position to advise Simon Davies that Condition 36 can now be discharged.

Many thanks

Regards

Kazys

Kazys Narbutas

ESCHER · SILVERMAN
Civil & Structural Consulting Engineers

Roughton
A2 Omega Park
Electron Way
Chandlers Ford
Hampshire
SO53 4SE

[REDACTED]

RE: P/125/14/PL

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From: Paul Cann [REDACTED]
Sent: 12 May 2017 09:53
To: kazys [REDACTED]
Cc: 'Alastair Dineen' [REDACTED]; Simon Davis [REDACTED] 'Ian Sellar' [REDACTED]; Simon Davis [REDACTED]
Subject: RE: Pagham Road, Pagham: Pagham Ditch; P/125/14/PL

Hi Kazys

The pipe invert at discharge point H1 is too low in comparison to the ditch bed. Is it possible to raise the pipe? If not, can the ditch be regraded? Ideally, we want to achieve 250-300mm freeboard.

Please show the rocker pipe which should be 600mm long. This pipe commences from the joint immediately next to the wall. As there is concrete bed and surround to the pipe, 18mm thick compressible filler board is required on the pipe joints (show detail).

Include additional dimensions on headwall ie. width and height of facing brickwork, splay angle of wing walls, etc.

Specify class B engineering brickwork for all walls.

Regards

Paul Cann
Senior Engineer (Drainage & Coastal)

Paul Cann | Senior Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: Second Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

Internal: 37819 | External: +44 (0) 1903 737819 | Fax: +44 (0) 1903 716019 | E-mail: Paul.Cann@arun.gov.uk

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Save the environment - think before you print.

From: kazys [REDACTED]
Sent: 10 May 2017 10:00
To: Paul Cann
Cc: 'Alastair Dineen'; Simon Davis; 'Ian Sellar'; Simon Davis
Subject: RE: Pagham Road, Pagham: Pagham Ditch; P/125/14/PL

Paul

Following on from our recent correspondence please find attached details for the proposed headwall outfalls into the ditch at the above site.
If these meet with your approval could you advise your planning colleague, Simon Davies, that Planning Condition 35 can now be discharged.

Many thanks

Regards

Kazys

Kazys Narbutas

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From: kazys

Sent: 20 April 2017 15:17

To: 'Paul Cann' [REDACTED]

Cc: 'Alastair Dineen' [REDACTED]; 'Ian Wood' [REDACTED]; 'Simon Davis' [REDACTED]

Subject: RE: Pagham Road, Pagham: Pagham Ditch; P/125/14/PL

Paul

Thank you for your speedy response. I have attached the two standard details for headwalls as produced by WSCC. Which one would you prefer? Given your comment about the headwall not interfering with the ditch profile I would suggest the bagwork headwall would be more appropriate but happy to adjust the brick headwall if you require that construction. I have also attached one of our own details that you may wish to consider as a solution.

I look forward to hearing from you.

Regards

Kazys

Kazys Narbutas

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From: Paul Cann [REDACTED]
Sent: 20 April 2017 14:06
To: kazys [REDACTED]
Cc: Alastair Dineen [REDACTED]; Ian Wood [REDACTED]; Simon Davis [REDACTED]
Subject: RE: Pagham Road, Pagham: Pagham Ditch; P/125/14/PL

Kazys

Bearing in mind condition 34 has been discharged, I think it is fair to assume that the discharge rates have already been agreed as part of the overall scheme. On that basis, the only thing I need to ensure is that the headwall structures will not encroach into the ditch profile and will be of an acceptable standard, so please could you forward the construction details of these for approval.

As far as I can see, there are no proposals to culvert/divert any ditches.

Regards

Paul Cann
Senior Engineer (Drainage & Coastal)

Paul Cann | Senior Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: Second Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF

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Save the environment - think before you print.

From: kazys [REDACTED]
Sent: 20 April 2017 11:36
To: Paul Cann
Cc: Alastair Dineen; Ian Wood
Subject: Pagham Road, Pgham: Pagham Ditch; P/125/14/PL

Paul

We were dealing with Tom Callaway on this site, before he left, and he did contact Simon Davies and Planning Conditions 34 & 36 have been discharged, leaving Condition 35 as the only outstanding drainage condition. This relates to the discharge consent, which, as you will see in my e-mail below I mentioned to Tom, requesting any comment prior to an application.

Could you, or whoever would now be dealing with this site, please confirm suitability of the proposals and advise which of the two headwall options you would wish to see constructed. Once I have your response I can make the formal application for Land Drainage Consent and secure a discharge of Condition 35.

I look forward to hearing from you.
Many thanks

Regards

Kazys

Kazys Narbutas

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From: kazys
Sent: 30 March 2017 10:53
To: 'Thomas Callaway' [REDACTED]
Cc: 'Alastair Dineen' <[REDACTED]>
Subject: Pagham Road, Pgham: Pagham Ditch; P/125/14/PL

Tom

We have now completed our preliminary drainage design for the above site

which is now submitted for your approval in accordance with planning conditions

Regarding the use of soakaways as the means of surface water disposal we have undertaken ground water monitoring from November through to March and the observed groundwater levels show that it will not be possible to incorporate soakaways into a drainage solution. For your information I have attached a copy of a previously undertaken site investigation which gives you an idea of the lack of soakage potential of the site.

Attenuation storage will be contained in the sub base layer and levels can be seen on the attached longitudinal sections drawing. MicroDrainage attenuation volume calculations are attached.

The strategy follows the discussions we have had regarding discharging to the adjacent watercourse and at the controlled rate of the greenfield run off added to the discharge rate of the existing developed area. Attached are the substantiating calculations for the discharge rates. As an additional form of pollution control we have incorporated Downstream Defenders into the surface water drainage systems prior to discharging into the watercourse.

Although we have yet to make a formal application for discharging of flows, could you confirm that the information supplied will make that a formality.

Finally attached is an operations and maintenance manual as required by the Planning Conditions.

Given the above information and submissions could you now confirm that you will be advising your planning colleague that Conditions 34, 35 & 36 of the planning conditions can be discharged. A formal application to the planning officer, containing my submission to you, will now be made by our client.

Many thanks.

Regards

Kazys

Kazys Narbutas

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From: kazys

Sent: 27 March 2017 16:24

To: Thomas Callaway [REDACTED]
Cc: Alastair Dineen <[REDACTED]>
Subject: RE: Pagham Road, Pgham: Pagham Ditch

Tom

Thank you for your response, I was out of the office on Friday and am just getting round to addressing all my e-mails!
Without wanting to be too pedantic regarding your reply could you please just clarify that this is an in-principle 'Yes' to my question.

Regards

Kazys

Kazys Narbutas

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From: Thomas Callaway [REDACTED]
Sent: 24 March 2017 14:14
To: kazys [REDACTED]
Subject: RE: Pagham Road, Pgham: Pagham Ditch

Kazys

Yes I can confirm that all that will be needed for a DOC application would be the drainage design backed up with calculations for the 1 in 100 year storm event plus climate change, details of the restriction of discharge to greenfield/pre-developed rates, and details from the groundwater monitoring and percolation testing showing soakage isn't feasible. Additionally we need the SuDS maintenance details.

Regards

Tom Callaway



From: kazys [REDACTED]
Sent: 23 March 2017 17:30
To: Thomas Callaway
Cc: Alastair Dineen
Subject: Pagham Road, Pgham: Pagham Ditch

Tom

Following on from our conversation earlier please see below a report that Alastair Dineen put together regarding the further investigations that have been undertaken to establish the surface water discharge route.

As you will see from the attached sketch the route of the culverted watercourse is directly underneath the boundary of the caravan park and any excavation to revert to an open watercourse would be fraught with difficulties. I trust you will appreciate that we have made every effort to investigate the current situation and our conclusion that we are not in a position to establish an open watercourse which was something you would have liked.

Could you now confirm that, subject to receiving further design information and a maintenance regime, you will be in a position to discharge Conditions 34,35 & 36 of the Planning Consent?

Many thanks

Regards

Kazys

Kazys Narbutas

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From: Alastair Dineen [REDACTED]
Sent: 15 March 2017 12:05
To: kazys [REDACTED]
Subject: RE: Pagham Ditch

Kazys

I write further to our telephone conversation last Thursday 9th March regarding the above.

With reference to the attached plan, we made one final attempt on the 9th to trace the extent of the culverted ditch to the rear of 251 Pagham Road, Pagham, this time using a Sonde transmitter and receiver and Ground Penetrating Radar (GPR).

Firstly, we laid a linear Sonde transmitter in the culvert from the manhole in the ditch, as shown by the red line on the plan. Using the Sonde receiver, we were able to detect the pipe alignment, more or less beneath the alignment of the rear boundary fences of Conifer Way. We were able to get much further west (circa 90m) then previously (circa 23m) without the camera on the end of the line. Although the linear Sonde only extended to approximately 60m, it appears that the flowing water in the pipe acted as a conductor and carried the signal, albeit weakening, up to an additional 30m.

Using GPR, we were then able to pick up the pipe further down the field (Orange line) before it turn through 90 degrees at the bottom of the run to head south, parallel to the rear of Laurel Drive, and then through a further 90 degree bend back towards the rear of no. 7 Laurel Drive. Once we reached the top of the bank adjacent to the railway sleeper wall (bund) we weren't unable to proceed any further because of the slope.

Moving inside the Mill Farm Park estate, we lifted the manhole cover again at the end of Laurel Drive and sent the Sonde transmitter in an easterly direction (Green line) until it hit an obstruction at about the rear corner of no. 7. There was a good flow of water coming from the east into the manhole.

What we weren't able to do was make a connection between the drain at No.7 Laurel Drive (Green line) and the pipe alignment detected in the field with the GPR (Orange line). When the cover on the manhole was replaced and hit with a hammer, the sound could be heard back in the manhole in the ditch at the top of the run, albeit muffled.

The owner of No.7 then came out and showed us photos of when they had had a huge soakaway dug in that corner of their garden to tackle standing water, circa 15 years ago. I have marked the position with a brown asterisk. The soakaway apparently takes the form of a large hole filled with demolition rubble but is undetectable from the surface.

So in conclusion, it sounds very much as though the culverted ditch does eventually connect with the Mill Farm Park's surface water drainage system as shown on the plan (red, then orange, then green, then blue).

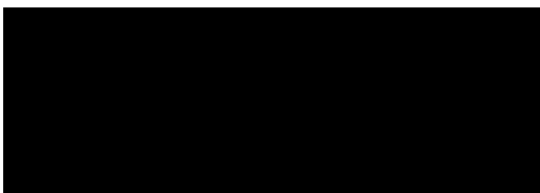
So why did we not see fluorescent dyed water emerge in the Laurel Drive manholes when it was added to the top of the run on 25th January? We waited for around three and a half hours without a trace emerging in any of the manholes in Laurel Drive. It is possible that it was being detained in the 'soakaway' and later percolated in to the drainage system in a much diluted and degraded form, such that we did not detect it.

So we estimate that we can now say, with at least 95% certainty, that the piped ditch connects to the drainage in Laurel Drive via the route shown on the attached plan.

Kind regards,

Alastair

Alastair Dineen
Land Director
Crayfern Homes Ltd



<http://www.arun.gov.uk>

NLPG UPRN 100062237016
DX 57406 Littlehampton

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