



James Neave
West Sussex County Council
County Hall
West Street
Chichester
PO19 1RQ

WSSC/052/20
8 March 2022

Dear James,

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)
**A29 Realignment Scheme WSSC/052/20: Application to fully discharge
planning condition 7.**

This application to discharge conditions attached to planning permission WSSC/052/20 has been prepared by WSP UK Ltd on behalf of West Sussex County Council (the Applicant). Planning permission WSSC/052/20 granted on 30th June 2021 consented:

“Construction of a single carriageway with shared cycleway / footway, roundabouts, road markings, traffic signals, bus stops, provision of hard and soft landscaping, construction of a substation building, installation of a noise barrier, and other associated works at Land to the north of Eastergate and north-west of Barnham, PO22 0DF”.

This application seeks to fully discharge condition 7 (Drainage Scheme). The relevant documents / drawings supporting this application are listed in the table appended to this letter.

Planning Condition 7 states;

“No development shall be carried out until a detailed drainage scheme (in general accordance with the approved drainage strategy (Drainage Strategy Layout (Ref. A29-CAP-HPN-00-DR-C-0047 Rev P11); Drainage Strategy (Ref. A29-CAP-HDG-00-AN-D-0052-S3-P05); and SuDS Management Train (Ref. A29-CAP-HDG-00-AN-D-0058 Rev S3-P04)) has been submitted to and approved in writing by the County Planning Authority.

In addition to that set out within the approved drainage strategy, it shall include details of all necessary improvements to existing drainage in Barnham Road required to accommodate additional flows arising from the development hereby permitted, and a



timetable for their implementation. Thereafter the approved drainage scheme shall be implemented and maintained in full.

Reason: to ensure that the proposed development is satisfactorily drained and ensure that impacts through flooding are not caused”.

Detailed drainage scheme

The first part of this Condition relates to the detailed drainage scheme. It has been completed and included in this submission. This includes manhole and pipe schedules: details are set out in the accompanying table.

Barnham Road amendments to drainage

The second part of the condition requires further details of all the necessary improvements to the existing drainage to accommodate the additional flows arising from the development of the Scheme and a timetable for implementation.

In regards to ‘additional flows’, the Barnham Road Drainage Technical Note October 2021 demonstrates that the proposed highway changes do not impose additional flows to the existing SW drainage system. On the contrary, the proposed highway scheme, and associated drainage system provides betterment to the existing network by way of reducing the catchment area draining to the existing drainage system and diverting this to attenuation in pond 4. The technical note and Drawing Number: A29-CAP-HDG-00-AN-D-0082 TN - Barnham Rd Drainage S3-P01 outlines this and refers to the approved drawing relevant to Barnham Road, Drawing Number: A29-CAP-HDG-99-DR-C-0051 S4-P08.

This technical note has been reviewed and agreed ‘in principle’ by the West Sussex drainage team. This was confirmed in correspondence on 27th October 2021 which states that the Lead Local Flood Authority (LLFA) is satisfied that the analysis demonstrates an overall reduction in flow towards the existing drainage system.

In addition to the inflow review above, further work has been completed to examine the condition and retainment of the existing surface water drainage system under the proposed roundabout on Barnham Road. Options have been investigated to replace the existing surface water system, in this part of the Barnham Road, which included the following:

- Option 1 Online replacement;
- Option 2 Online repair; and
- Option 3 Offline diversion.

The preferred approach is option 3, the offline diversion, using the same hydraulic characteristics as the existing system. This provides new infrastructure to replace the currently damaged pipe network, and also provides for better future maintenance access. It is also the most cost-effective option, with least risk related to existing utility services.



Further correspondence with the LLFA on the 26th November 2021 agreed the design criteria and the proposed diversion approach which takes the existing system away from under the proposed roundabout. Final feedback on the 20th January (email attached) confirmed acceptance of the detailed design for Option 3 for altering the existing surface water drainage on Barnham Road as the preferred approach.

In terms of the timescale for implementation of drainage at Barnham Road, the Applicant is currently reviewing early utility and drainage diversions mid-late 2022 / early 2023. However, if delayed, these works would form part of the main works programme from Spring 2023 and would form an early intervention as part of the utility diversion works, through the Summer 2023. This timescale is currently subject to review and land acquisition.

We understand that the application fee of £116.00 will be paid via an internal transfer within West Sussex County Council, using the WSCC Charge Code HC-00010.1.

I trust everything is in order and that the applications can be progressed without delay. If you have any queries, please do not hesitate to contact me.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Sam Noble', written in a cursive style.

Sam Noble
Graduate Consultant - Infrastructure Planning



A29 WSCC/052/20: Application to fully discharge planning condition 7.				
Condition Number	Condition Information	Relevant Drawings / Documents		
		Title	Document Reference Number	Document Revision Number
7	<p>No development shall be carried out until a detailed drainage scheme (in general accordance with the approved drainage strategy (Drainage Strategy Layout (Ref. A29-CAP-HPN-00-DR-C-0047 Rev P11); Drainage Strategy (Ref. A29-CAP-HDG-00-AN-D-0052-S3-P05); and SuDS Management Train (Ref. A29-CAP-HDG-00-AN-D-0058 Rev S3-P04)) has been submitted to and approved in writing by the County Planning Authority. In addition to that set out within the approved drainage strategy, it shall include details of all necessary improvements to existing drainage in Barnham Road required to accommodate additional flows arising from the development hereby permitted, and a timetable for their implementation. Thereafter the approved drainage scheme shall be implemented and maintained in full.</p> <p><i>Reason: To ensure that the proposed development is satisfactorily drained and ensure that impacts through flooding are not caused.</i></p>	<p>Barnham Road Drainage Technical Note October 2021</p> <p>Email confirmation of flow reduction Email confirming feasibility of drainage diversion Email confirmation of LLFA preference for Option 3</p> <p>Drainage Layout Plan (Sheets 1 to 5)</p> <p>Drainage details (Sheets 1 to 2)</p> <p>Infiltration pond 2 Infiltration pond 3 Infiltration pond 4</p>	<p>A29-CAP-HDG-00-AN-D-0082 TN - Barnham Rd Drainage S3-P01 Including attachment relevant to Barnham Road: A29-CAP-HDG-00-DR-C-0051 S4-P08</p> <p>Email 27_10_21 REDACTED Email 26_11_21 REDACTED Email 20_01_22</p> <p>A29-CAP-HDG-00-DR-C-0048 S3-P05 A29-CAP-HDG-00-DR-C-0049 S3-P05 A29-CAP-HDG-00-DR-C-0050 S3-P06 A29-CAP-HDG-00-DR-C-0051 S4-P08 A29-CAP-HDG-00-DR-C-0052 S3-P05</p> <p>A29-CAP-HDG-00-DR-D-0053 S3-P02 A29-CAP-HDG-00-DR-D-0198 S3-P02</p> <p>A29-CAP-HDG-00-DR-D-0119 S3-P03 A29-CAP-HDG-00-DR-D-0120 S3-P03 A29-CAP-HDG-00-DR-D-0121 S3-P03</p>	<p>P01</p> <p>P08</p> <p>P05 P05 P06 P08 P05</p> <p>P02 P02</p> <p>P03 P03 P03</p>



	Typical Details for SDS Infiltration Tanks	A29-CAP-HDG-00-DR-D-0185 S3-P03	P03
	Drainage, manhole and pipe schedule (.xls)	A29-CAP-HDG-00-SH-D-0025-Drainage Schedule S4-P05	P05
	Highway Specification Drainage and Service Ducts Appendix 5 December 2020	A29-CAP-GEN-00-SP-C-0032-P02	P02
	SUDS Management Train	A29-CAP-HDG-00-AN-D-0058 TN - SUDs Management Train S3-P04	P04



From: Ray Drabble <Ray.Drabble@westsussex.gov.uk>

Sent: 27 October 2021 09:35

To: Stephen Reed <Stephen.Reed@westsussex.gov.uk>

Cc: Kevin Macknay <kevin.macknay@westsussex.gov.uk>

Subject: RE: A29 Realignment - Planning Condition 7 - Barnham Road Drainage and Potential Outstanding Drainage Items SR to RD inflow comparison 10092021

Stephen,

My apologies for failing to respond to your original email.

I have discussed with Kevin Macknay and we are happy with the analysis demonstrating an overall reduction in flow going to the existing system.

We await with interest the design for altering the existing SW drainage on Barnham Road.

Kind regards

Ray Drabble

Flood Risk Engineer (Sustainable Drainage)
Lead Local Flood Authority
West Sussex County Council

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Contact: **Internal:** 24077 | **External:** +44 (0)330 2224077 | **Mobile:** +44 (0)7590183138 | **E-mail:**
Ray.Drabble@westsussex.gov.uk

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From: Kevin Macknay <kevin.macknay@westsussex.gov.uk>

Sent: 26 November 2021 16:11

To: Stephen Reed <Stephen.Reed@westsussex.gov.uk>

Cc: Ray Drabble <Ray.Drabble@westsussex.gov.uk>

Subject: RE: A29 - Barnham Road SW Diversion - Feasibility Sketches - WSCC Drainage Team Thoughts SR issue 15112021

Stephen,

Having looked at the proposal it appears to be the best option. It takes the existing system away from under the proposed roundabout and ensures the system is in good condition and accessible for future maintenance.



Therefore, I'm happy with what has been proposed.

Regards,

Kevin

Kevin Macknay

Flood Risk Management – Team Leader
Highways, Transport and Planning
Place Services
West Sussex County Council

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E-mail: kevin.macknay@westsussex.gov.uk

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From: Stephen Reed <Stephen.Reed@westsussex.gov.uk>

Sent: 26 November 2021 15:25

To: Ray Drabble <Ray.Drabble@westsussex.gov.uk>; Kevin Macknay <kevin.macknay@westsussex.gov.uk>

Subject: RE: A29 - Barnham Road SW Diversion - Feasibility Sketches - WSCC Drainage Team Thoughts SR issue 15112021

Chaps, do you have any comments on the approach JCE / Capita are suggesting as they are on with the detail and pricing (will become option 3 for project board).

Just don't want them to do anything abortive, which I'll get charged for redoing!

KR

Stephen

Stephen Reed

Major Projects Project Manager (WSP Secondment)
Highways, Transport and Planning
West Sussex County Council

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Location: Northleigh, County Hall, Chichester, PO19 1RH

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stephen.reed@westsussex.gov.uk

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From: Stephen Reed

Sent: 15 November 2021 14:37

To: Ray Drabble <Ray.Drabble@westsussex.gov.uk>; Kevin Macknay <kevin.macknay@westsussex.gov.uk>

Subject: FW: A29 - Barnham Road SW Diversion - Feasibility Sketches - WSCC Drainage Team Thoughts SR issue 15112021

Importance: High

Dear Ray and Kevin

As you know, I had asked JCE to examine the potential to divert the existing Barnham Road SW pipes rather than build over them on the new works. We have already looked at the feasibility of replacement or remedials online, and those are very expensive and, to be fair, would not be the most "holistic" of approaches.

Following Kevin's feedback that we could use the existing pipe sizes and gradients for the diversion (providing similar hydraulic conditions), I have attached some draft sketches from JCE/Capita, and their notes below my email. We have also removed a significant area of impermeable road surface, as David notes, so that would also help.

It does look highly likely that there is a feasible route for the diversion, albeit we do need to make some minor checks on levels at the tie-in – I can't do that at the moment due to a lack of land access agreements, but we should be able to do that well before we come to the main works in April 2023 – we are planning an advanced works programme for 2022, once land is dedicated to the County, so this would be very soon in the list.

Before I can instruct JCE/Capita to progress DD would welcome your thoughts on the attached and comments below. The plan is to incorporate your feedback into an instruction to proceed to detailed design and also for JCE to provide a cost for the diversion (assuming all other stats diversions completed as required). Then, with the three options I can get direction from Project Board before submission on the planning condition, my recommendation would be for diversion as this provides the best long term solution and future maintenance access for this section.

Happy to chat it through, any chance of some initial feedback by the end of the week, I would have got it out sooner, but have been on leave – even if it is a “looks ok in principle, subject to confirming outfall info” or words to that effect?

Kind regards

Stephen

Stephen Reed

Major Projects Project Manager (WSP Secondment)
Highways, Transport and Planning
West Sussex County Council



Location: Northleigh, County Hall, Chichester, PO19 1RH

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From: David Vince <DVince@jackson-civils.co.uk>

Sent: 05 November 2021 11:24

To: Stephen Reed <Stephen.Reed@westsussex.gov.uk>; Eleanor.Fosberry@fgould.com

Cc: Tony Symonds <TSymonds@jackson-civils.co.uk>

Subject: A29 - Barnham Road SW Diversion - Feasibility Sketches

Hi Stephen,

I've uploaded to SharePoint [here](#) annotated drawings for the feasibility review of the SW diversion at Barnham Road.

- A29-CAP-HGD-00-SK-D-0275 – Annotated with SW diversion
- STATs cross sections at Barnham Road for SW diversion


You will see on drawings 0275, Capita have confirmed that, whilst this existing drainage network is unlikely to meet current design standards (we already knew and accepted that), the proposed diversion appears feasible and will maintain current performance rather than meeting current standards as per the new A29 drainage network. However a few points to note –

- Because we don't have invert level information at the exact tie-in point of the diversion, Capita have needed to assume an approximate invert level based on the GPR 2D survey information we obtained, assuming a constant slope between points. This existing run of highway drainage has always been flagged up by us as needing additional investigation / trial pit & level checks early on in the construction works. If we are looking at potentially carrying out this SW diversion in 2022, we would need to also bring forwards this (and all other?) service investigation works so to confirm levels and ensure we have an acceptable hydraulic design;
- The “stats cross sections” sketch shows no clashes, but this is dependent on the services we have already identified as needing to be diverted, are in fact diverted before this SW diversion works take place;


- In section A-A, the existing buried HV electric cable is shown as being diverted, but we would still then need to pass under it when it has been diverted. When the cable is diverted we would advocate ducting this part of the diversion so to provide additional protection for when we do need to come through with the new highway drainage;
- Section B-B shows what appears to be the most tricky section of the works with multiple existing service interfaces. Tony has made a good point during our reviews that we may be “better off” installing this section of the SW diversion as part of the main construction works instead of trying to do it earlier. The drainage would still perform in the interim with the other diverted pipes installed, but we could then install this tricky length of new pipe work during the main works when we have our “main works” TM in place, and are already installing the new highway drainage pipe across here. This approach would provide better value, prevent us working in this area on two separate occasions, and be done completely “off-line” when the southern part of the new roundabout has been constructed such that vehicles can be diverted onto that section of road, making it safer for us to construct.

We would appreciate any feedback from your team on these sketches before we ask Capita to move into detailed design. We also spotted a couple of areas looking tight for positioning new manholes, but we would ask Capita to address that at detailed design stage.

Many thanks.



David Vince
Project Design Lead
T 01473 238412 | M 07816 171271



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North, Jo

From: North, Jo
Sent: 07 February 2022 16:21
To: North, Jo
Subject: FW: kevin 20/1/22

From: Kevin Macknay <kevin.macknay@westsussex.gov.uk>
Sent: 20 January 2022 10:31
To: Stephen Reed <Stephen.Reed@westsussex.gov.uk>
Subject: RE: A29 Phase 1 - Barnham Road SW existing drainage diversion - detailed design - URGENT Feedback

Stephen,

I have seen the proposed (Op3) off-line diversion, and I'm happy with that as a proposal. Op3 is my preferred option. **Happy with the wording on your slide.**

Regards,

Kevin

Kevin Macknay
Flood Risk Management – Team Leader
Highways, Transport and Planning
Place Services
West Sussex County Council

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E-mail: kevin.macknay@westsussex.gov.uk

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From: Stephen Reed <Stephen.Reed@westsussex.gov.uk>
Sent: 20 January 2022 10:10
To: Kevin Macknay <kevin.macknay@westsussex.gov.uk>
Subject: RE: A29 Phase 1 - Barnham Road SW existing drainage diversion - detailed design - URGENT Feedback
Importance: High

Morning Kevin

I am taking the diversion of the Barnham Road SW drainage to Project Board on the 31st Jan and my papers have to be issued tomorrow. I have included my slide below, acknowledging the positive feedback on the diversion approach to date, assume you are happy for me to mention this?

Barnham Road SW Drainage Option for Plan

- There is a Pre-commencement Planning Condition requiring enhanced information for W Drainage approval to existing Barnham Road SW Drainage system
- Existing Planning submission leaves the current, poor condition, SW system in place under proposed r/b with a concrete protection slab – this was judged not ideal by WSCC Drainage but was not resolved in time and so a pre-commencement condition was imposed to ensure issue was addressed before highway works could start, including additional flows issues
- Options to replace the existing SW system online (Op1), repair the existing system online (still needing the protection slab) or to effect a utility diversion of the existing SW system (required) outside of the proposed roundabout (Op3) have been undertaken by JCE.

Option	1 (online replace)	2 (online repair)	3 (off line div)
JCE Estimate	£586k (17 wks)	£295k (9 wks)	£79k (4 wks)

- The new diversion system has the same hydraulic characteristics as the existing system, has positive feedback from WSCC Drainage team and provides for better future maintenance for WSCC. Option 3 also saves a £14k protection slab being required through the r/b.
- As this is a change of scope PM requires PB agreement to include, budget can be taken from QCRA Risk pot where an amount was provided for dealing with required changes at the P Stage (up to £250k allowance)
- If approach approved, Pre-commencement Condition 7 details will be submitted 4th February



Would you be able to confirm that you are generally happy with the detailed design pack (assume you received it ok as it was a large file), would be good to add this in?

Once PB approved, the team will submit the full details and the note on the “inflow to the existing system from part of the roundabout” for condition discharge – so you get another look at it in any event.

Any problems by all means give me a call on the mobile or on teams/skype.

Kind regards

Stephen

Stephen Reed
 Major Projects Project Manager (WSP Secondment)
 Highways, Transport and Planning
 West Sussex County Council

CALL IM EMAIL

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