



From: Paul Cann <Paul.Cann@arun.gov.uk>

Sent: 27 October 2022 13:38

To: Planning.Responses <Planning.Responses@arun.gov.uk>; Katie Sharp <Katie.Sharp@arun.gov.uk>

Cc: Karl McLaughlin <Karl.McLaughlin@arun.gov.uk>

Subject: RE: Planning Consultation on: CM/48/21/RES

Please find enclosed our consultants comments on the above. Note the continued requirement for a holding objection and the request for an additional condition (also previously requested by former colleague Laura Gibbons).

Regards

Paul Cann
Principal Drainage Engineer
Engineering Services

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From: Land Drainage <Land.Drainage@arun.gov.uk>
Sent: 17 June 2022 07:49
To: Paul Cann <Paul.Cann@arun.gov.uk>
Subject: FW: Planning Consultation on: CM/48/21/RES

From: Planning.Responses <Planning.Responses@arun.gov.uk>
Sent: Friday, June 17, 2022 6:48:36 AM (UTC+00:00) Monrovia, Reykjavik
To: Land Drainage <Land.Drainage@arun.gov.uk>
Subject: Planning Consultation on: CM/48/21/RES

To: **Engineers (Drainage)**

NOTIFICATION FROM ARUN DISTRICT COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

Application No: CM/48/21/RES

Registered: 7th September 2021

Site Address: Land to the West of Church Lane South of Horsemere Green Lane Climping

Grid Reference: 500058 102025
Category: Plan Applicat'n
Description of Works: Approval of reserved matters following the grant of CM/1/17/OUT for the erection of 300 No dwellings & a building within use class E, together with public open space, LAPs, LEAP & ancillary works, including car parking & drainage arrangements, with access off Church Lane & Horsemere Green Lane. This application may affect the setting of listed buildings & is in CIL Zone 4 (HSP2) & is not CIL Liable.

I am able to inform you that I have received an amendment to the above application dated 17th June 2022 relating to:- amended plans

[Click here to view the plans and documents](#)

If you should wish to make further representations as a result of this amendment you should click the link below and then click on 'Enter comment'.

[Click here to make further comments](#)

Please make any further comment by **21st July 2022**.

Please be aware that Planning Services operate an 'open file' policy and will publish your comments including your name and address on the website. We will aim to redact signatures, telephone numbers and email addresses but please help us by not incorporating them in the body of your text. Please make sure that you only include information that you are happy will be published in this way. If you supply information belonging to a third party, you must make sure you have their permission to do so.

Yours sincerely

Katie Sharp

Planning Case Officer- Arun District Council

Telephone: 01903 737832

Email: katie.sharp@arun.gov.uk

PLP/ECN (008) 2013

Project Name: Land to the West of Church Lane South of Horsemere, Green Lane, Climping.

Planning Reference: CM/48/21/RES – Outline Conditions - Planning Conditions 9, 10 and 11

Planning Conditions from CM/1/17/OUT

9)	No development shall take place until:	11)	No development shall take place until a Flood Management and Mitigation scheme has been submitted to and approved in writing by the local planning authority, taking account of the measures set out in the
i.	a surface water drainage scheme, based on sustainable drainage principles, has been submitted to and approved in writing by the local planning authority. The sustainable urban drainage system (SUDS) shall be implemented in accordance with the approved details and agreed timetable, and shall be permanently retained thereafter. The details shall include a detailed site specific SUDS Maintenance and Management Plan, setting out the ongoing maintenance and management of the SUDS, including financial management;		
ii.	a foul water drainage scheme, has been submitted to and approved in writing by the local planning authority. The scheme shall be implemented in accordance with the approved details and agreed timetable, and shall be permanently retained thereafter.		
10)	No development shall take place until:		
i.	consent has been granted in writing by the local planning authority for the discharge of any flows to watercourses, or the culverting, diversion, infilling or obstruction of any watercourse on the site;		
ii.	a scheme for the future access and maintenance of any watercourse or culvert crossing or abutting the site has been submitted to and approved in writing by the local planning authority. The scheme shall be implemented as approved;		
iii.	the location within the site of the rising main and foul sewer pipe (including any additional Southern Water infrastructure) has been identified, and approval received from the local planning authority that work can commence.		

Formal Requests

- **Maintain the Holding Objection on the grounds that more information is required to assess the proposals**
- **Apply additional condition ENG D1**
- **Apply Informative INFORM D4**

Planning Comments and Responses

Comment Reference	Comments / Actions	Date	1 st Designers Response	Date	Comments / Actions	2 nd Designers Response	Comments / Actions	3 rd Designers Response	Status
1	You have previously provided cross-sections of the proposed basins. The cross-sections confirm that a number of the ponds do not provide adequate freeboard. These are as follows; Basin 2, Basin 5 and Basin 6. Freeboard is required to; provide resistance against failure, to account for uncertainties in design (there is a very large degree of uncertainty with hydrology), allow for errors in construction, and to account for erosion or settlement of raised banks. A minimum of 150mm freeboard is required within the basins for the 1:100+40% rainfall event. Please update the basins to provide this.	24/10/2022							
2	Buoyancy calculations are required for all basins based on the updated basin design and recorded groundwater levels at the site together with details of the depths of material required to combat flotation. The calculations must take account for the total depth of the impermeable liner and not just the invert of the basin to determine displaced groundwater.	24/10/2022							

3	Please provide further information and commentary for the catchment which currently drains to the proposed point of discharge together with evidence that the receiving network has capacity to receive additional flows. This connection to the water course also serves the highway drainage for a large section of the A259 and Church Lane. An assessment is needed that the connecting pipe work has capacity to take the additional flow rate out falling from the site without causing a flood risk. The additional flow created by the highway work (roundabout will need to be considered in this assessment as they will ultimately flow through the connection to the watercourse.	24/10/2022																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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	ingress from floodwater backing up into any geo-cellular storage systems. - Overflow systems can be used as an alternative but will require justification and are subject to approval.																		
9	A new water course is proposed along the northern site boundary. Is this just a conveyance swale for the onsite system or does this receive flows from anywhere offsite? There is no mention of this in the FRA. It is noted that the side slopes are 1:2 these should be reduced to 1:3 as it is noted that the 'swale' is up to 1.9m deep in some places. Details of the 'swale' within the calculation do not match those within the calculations I.E invert levels (depths) and gradients these need to be consistent to allow for appropriate checks to be made and the model to perform as proposed on the plans. Further inconsistencies are noted regarding link type and pipe numbering. For instance, links 1.006	24/10/2022																	
10	The impact of groundwater needs to be considered for the proposed swale. Should the swale be located within the groundwater, how will ground water be prevented from entering the swale? Buoyancy calculations will need to be provided should the swale be proposed as lined.	24/10/2022																	
11	No calculations or specific details for the Highway Drainage system that serves the proposed offsite works has been provided at this stage. The flow rate into the watercourse and storage requirements will need to be provided to allow an assessment on if these proposals can be accommodated in the proposed drained design and overall strategy.	24/10/2022																	
12	The outfall pipe from the onsite system should avoid where possible the RPAs of the existing tree. Please revise.	24/10/2022																	
13	Please provide a commentary on the exceedance storage area and how these will work in terms of levels compared to the ponds. Inverts of the headwalls (inflow / outflow?) and other details are required.	24/10/2022																	
14	The FRA and drainage plans state that the system 'is proposed that a 'hybrid' strategy will be implemented, with infiltration maximised where possible in view of site constraints'. Has this been considered? The site should in accordance with the SuDS hierarchy infiltrate to ground in the first instance wherever possible taking into account the ground water levels and recorded soakage rates from the investigations on site.	24/10/2022																	
15	The Flow calculations show a number of nodes flooding on the 1:100 plus 40% event. It is noted that exceedance areas have been provided for these floods. However, cover levels between the calculations and the drainage plan supplied do not correspond which does not allow accurate checking of these to be undertaken.																		

	Some water levels in the flooded nodes are below the cover levels shown on the plan and may not flood should the model and the plan correspond. After some further investigation the node numbers and pipe number also do not correspond with the plan. For example, pipe 22.000 links nodes 141 and 140 however there is no pipe 22.000 shown on the plan. Please investigate. The plan should accurately show all pipe numbers and node numbers that correspond to the calculation. Together with pipe lengths and gradients shown as well. Also, the exceedance routes at the south of the site I.E near node 92 flow into and area where levels cannot be assessed. Please provide information on these areas.									
16	It should also be noted that as some of the exceedance events are for the shorter storm durations it is likely that upsizing pipes may combat the flood occurrences and keep the water below ground for all events, please can this be explored. The exceedance flow paths shown do not align with the contour perpendicularly. Also, no kerbing details are shown on the plans or have been provided. Please update the fall arrows and a plan confirming where full height and drop kerbs are proposed so that an assessment of the exceedance areas and routes can be made.									
17	Further details of the permeable paving storage blankets is required. As above the nodes within the calculations and the plan do not correspond. Also please provide a plan showing the dimensions of these areas together with the area of each system. Also, it is noted the slope for each of these systems has been entered at 1:100 within the calculation however the gradients of some of the paving in these areas is much steeper. Are these blankets intended to be used for storage or just water quality improvements?									
18	There are a number of Orifice flow controls included within the model. These cannot be identified on the plan. Please confirm their location and function within the design.									
19	The drain down time within the calculation is set to 240min. therefore no half drain times for the storage structures have been calculated. Please increase this to over 24hrs and include half drain times for each system.									