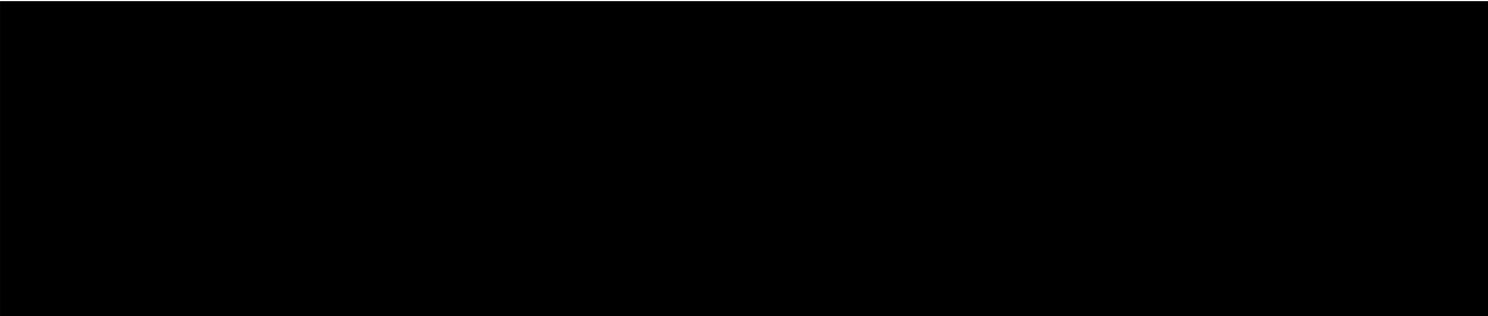
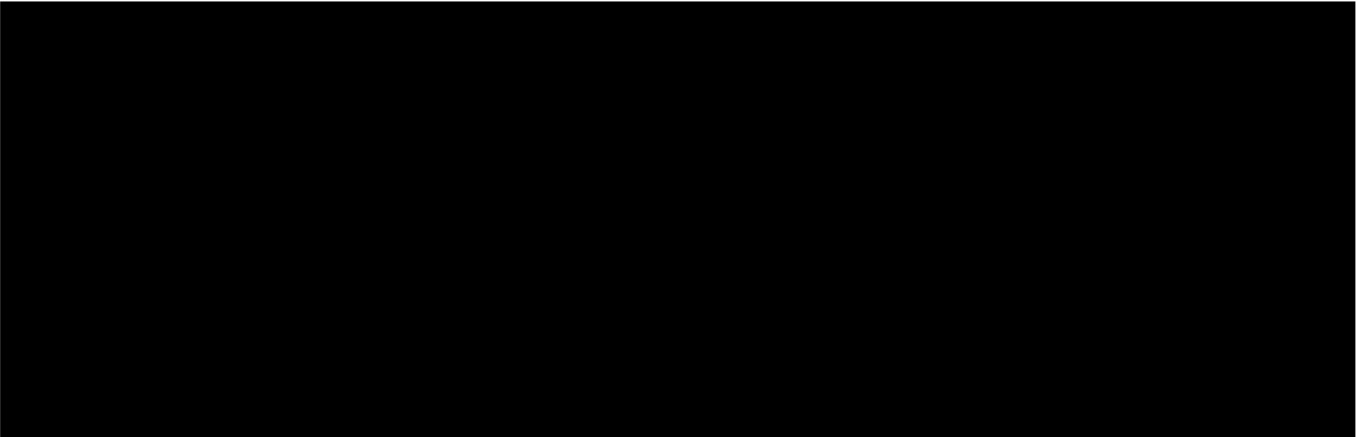






From: Paul Cann <Paul.Cann@arun.gov.uk>

Sent: 17 January 2020 10:56

To: David Spring <David.Spring@arun.gov.uk>; Juan Baeza <Juan.Baeza@arun.gov.uk>

Cc: Roger Spencer <Roger.Spencer@arun.gov.uk>

Subject: FW: AB/88/19 Gasworks Site, Ford Road, Arundel

Hi Both

Further to our discussions, we can now confirm the following;

1. We note that a sequential/exception test will need to be undertaken to determine the suitability of this site for residential development. This is irrespective of the site being designated within the Arundel Neighbourhood plan.
2. For background information, I enclose previous comments from my colleague raising an objection to the development based upon the previously proposed surface water drainage system being located within the fluvial flood plain. This is due to the fact that the proposed drainage system would be overwhelmed during the relevant fluvial flood event (ie. 1 in 100 year + climate change allowance). The net result being that the drainage system will be unable to operate effectively and may increase flood risk on the site itself or elsewhere, is not a sustainable solution and would increase risk in terms of contaminants (mainly but not limited to hydrocarbons from parked vehicles) being washed out of the proposed car park structure/s and then dispersed into watercourses, ultimately causing pollution.
3. I also enclose previous comments from West Sussex County Council (the Lead Flood Authority) highlighting similar concerns.
4. The latest proposals from the applicants engineers are enclosed and still do not resolve all the issues in item 2 above. The current scheme involves installing storage tanks (to store roof water) just below first floor level

and above the predicted 1 in 100 year (+ 105% allowance for climate change) fluvial flood level . These tanks would then discharge into a below ground drainage system that also serves ground level car parking areas (and within the fluvial flood plain). It is unclear whether the proposed system has been designed to accommodate a 1 in 100 year storm event + 40% climate change allowance or given due consideration to the impacts of tide locking downstream. Maintenance of those tanks and potential blockage issues with their restricted outlets are also considered to be operational issues. Nevertheless, the fact that the storage tanks will discharge into a below ground drainage system that would itself be submerged/full during the fluvial flood event, is not an acceptable or sustainable solution. For these reasons and those mentioned in item 2, we will maintain our objection. If conditions were applied as mentioned by my colleague, then it is very unlikely that applicant will be able to satisfy those relating to surface water disposal, since there currently appears to be no sustainable/workable solution given the site constraints.

Any queries, please let us know.

Regards

Paul Cann
Principal Engineer (Drainage)

Paul Cann | Principal Engineer (Drainage), Engineering Services, Arun District Council | Location: First 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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From: Laura Gibbons
Sent: 05 September 2019 10:00
To: Planning.Responses <Planning.Responses@arun.gov.uk>
Subject: RE: Planning Consultation on: AB/88/19/PL

Engineers Comments Regarding Surface Water Drainage

No attenuation of surface water should occur within the flood plain, it is unclear how this can possibly be achieved, and therefore there is a significant risk that flood risk will be increased elsewhere.

The existing culverted watercourse must not be removed unless it is conclusively proven that this is no longer in use.

I object to the application on the above points. However, If you are minded to approve this application please apply the following conditions:

PCENG D2

"Development shall not commence, other than works of site survey and investigation, until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, and the recommendations of the SuDS Manual produced by CIRIA. Winter groundwater monitoring to establish highest annual ground water levels and winter Percolation testing to BRE 365, or similar approved, will be required to support the design of any Infiltration drainage. No building / No part of the extended building shall be occupied until the complete surface water drainage system serving the property has been implemented in accordance with the agreed details and the details so agreed shall be maintained in good working order in perpetuity."

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W SP1, W DM1, W DM2 and W DM3 of the Arun Local Plan. This is required to be a pre-commencement condition because it is necessary to implement the surface water drainage system prior to commencing any building works.

And the accompanying informative:

INFORM D

"Infiltration rates for soakage structures are to be based on percolation tests undertaken in the winter period and at the location and depth of the proposed structures. The percolation tests must be carried out in accordance with BRE365, CIRIA R156 or a similar approved method and cater for the 1 in 10 year storm between the invert of the entry pipe to the soakaway, and the base of the structure. It must also have provision to ensure that there is capacity in the system to contain below ground level the 1 in 100 year event plus 40% on stored volumes, as an allowance for

climate change. Adequate freeboard must be provided between the base of the soakaway structure and the highest recorded annual groundwater level identified in that location. Any SuDS or soakaway design must include adequate groundwater monitoring data to determine the highest winter groundwater table in support of the design. The applicant is advised to discuss the extent of groundwater monitoring with the Council's Engineers.

Supplementary guidance notes regarding surface water drainage are located here

<https://www.arun.gov.uk/surfacewater> on Arun District Council's website. A surface water drainage checklist is available here <https://www.arun.gov.uk/drainagechecklist> on Arun District Council's website, this should be submitted with a Discharge of Conditions Application."

PCENG D3

"The development shall not proceed until details have been submitted to and approved in writing by the Local Planning Authority for any proposals: to discharge flows to watercourses; or for the culverting, diversion, infilling or obstruction of any watercourse on or adjacent to the site. Any discharge to a watercourse must be at a rate no greater than the pre-development run-off values. No construction is permitted, which will restrict current and future land owners from undertaking their riparian maintenance responsibilities in respect to any watercourse or culvert on or adjacent to the site. "

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W DM1, W DM2 and W DM3 of the Arun Local Plan. And to ensure that the duties and responsibilities, as required under the Land Drainage Act 1991, and amended by the Flood and Water Management Act 2010, can be fulfilled without additional impediment following the development completion. It is considered necessary for this to be a pre-commencement condition to protect existing watercourses prior to the construction commencing.

And the accompanying informative:

INFORM D2

"Under Section 23 of the Land Drainage Act 1991 Land Drainage Consent must be sought from the Lead Local Flood Authority (West Sussex County Council), or its agent (Arun District Council land.drainage@arun.gov.uk), prior to starting any works (temporary or permanent) that affect the flow of water in an ordinary watercourse. Such works may include culverting, channel diversion, discharge of flows, connections, headwalls and the installation of trash screens.

The development layout must take account of any existing watercourses (open or culverted) to ensure that future access for maintenance is not restricted. No development is permitted within 3m of the bank of an ordinary watercourse, or 3m of a culverted ordinary watercourse."

PCENG D4

"Development shall not commence until full details of the maintenance and management of the surface water drainage system is set out in a site-specific maintenance manual and submitted to, and approved in writing, by the Local Planning Authority. The manual is to include details of financial management and arrangements for the replacement of major components at the end of the manufacturer's recommended design life. Upon completed construction of the surface water drainage system, the owner or management company shall strictly adhere to and implement the recommendations contained within the manual."

Reason: To ensure that the proposed development is satisfactorily drained in accordance with policies W DM1, W DM2 and W DM3 of the Arun Local Plan. It is considered necessary for this to be a pre-commencement condition to ensure that the future maintenance and funding arrangements for the surface water disposal scheme are agreed before construction commences.

Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)



From: planning.responses@arun.gov.uk <planning.responses@arun.gov.uk>

Sent: 20 August 2019 11:06

To: Land Drainage <Land.Drainage@arun.gov.uk>

Subject: Planning Consultation on: AB/88/19/PL

To: Engineers (Drainage)

NOTIFICATION FROM ARUN DISTRICT COUNCIL

Town & Country Planning Act 1990 (as amended)

Town and Country Planning (Development Management Procedure) (England) Order 2015

Planning Permission

APPLICATION NO: AB/88/19/PL

Registered: 19th August
2019

Site Address: Land at Electricity Sub Station Ford Road Arundel BN18 9DX

Grid Reference: 501295 106735

Description of Works: 38 No residential apartments (9 No 1-bed units & 29 No. 2-bed units) along with access, off-street parking, amenity space & enhancements to the local footpath network.

The Council have received the above application. I shall be pleased to receive any observations you may wish to make.

[Click here to view the application details](#)

Should you have any comments to make, these should be sent by replying to this email by 19-SEP-19.

You can also monitor the progress of this application through the Council web site:
www.arun.gov.uk/planning

Please be aware that any comments you may make will be available on our website so please do not insert personal details or signatures on your reply.

In the absence of a reply within the period stated, I shall assume that you have no observations to make.

The application will be determined having regard to the development plan policies (if any are relevant) and other material considerations. The development plan can be accessed via the website as can the leaflet which deals with material planning considerations.

Should the application go to appeal the Planning Inspectorate will publish any comments made to the Council on their website: www.planningportal.gov.uk/planning/appeals/ but they will protect personal details.

The officer dealing with this application is Richard Castro-Parker who can be contacted on telephone number 01903 737643.

Regards
Planning Officer

consultee_email

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Arun District Council FAO: Richard Castro-Parker
FROM:	WSCC – Lead Local Flood Authority
DATE:	10 th September 2019
LOCATION:	Land at Electricity Sub Station, Ford Road, Arundel, BN18 9DX
SUBJECT:	AB/88/19/PL 38 No residential apartments (9 No 1-bed units & 29 No. 2-bed units) along with access, off-street parking, amenity space & enhancements to the local footpath network
RECOMMENDATION:	Advice

West Sussex County Council (WSCC), in its capacity as the Lead Local Flood Authority (LLFA), has been consulted on the above proposed development in respect of surface water drainage.

The following is the comments of the LLFA relating to surface water drainage and flood risk for the proposed development and any associated observations, recommendations and advice.

Flood Risk Summary

Current surface water flood risk based on 30year and 100year events	Low risk
Comments: Current surface water mapping shows that the proposed site is at low risk from surface water flooding although adjacent land is at higher risk. This risk is based on modelled data only and should not be taken as meaning that the site will/will not definitely flood in these events. Any existing surface water flow paths across the site should be maintained and mitigation measures proposed for areas at high risk. Reason: NPPF paragraph 163 states – ‘When determining any planning application, local planning authorities should ensure flood risk is not increased elsewhere.’	

Modelled groundwater flood hazard classification	High risk
Comments: The area of the proposed development is shown to be at high risk from groundwater flooding based on current mapping. Ground water contamination and Source Protection Zones. The potential for ground water contamination within a source protection zone has not been considered by the LLFA. The LPA should consult with the EA if this is considered as risk.	

Ordinary Watercourses nearby?	Yes
Comments: Current Ordnance Survey mapping shows an ordinary watercourse in close proximity to the site as well as the River Arun. Works affecting the flow of an ordinary watercourse will require ordinary watercourse consent and an appropriate development-free buffer zone should be incorporated into the design of the development.	
Records of any historic flooding?	No
Comments: We have no records of historic flooding within the boundary of the proposed site. Other locations, in close proximity, have suffered historic flooding. This should not be taken that this site has never suffered from flooding, only that it has never been reported to the LLFA.	

Future development - Sustainable Drainage Systems (SuDS)

The FRA and Surface Water Drainage Strategy included with this application state that below ground attenuation with a restricted discharge to the watercourse would be used to control the surface water runoff from the site.

As per the recommendations by the District Council Drainage Engineer, there are concerns that as the surface water attenuation would be located within the flood plan it may not satisfy the requirements of the National Planning Policy Framework (paragraphs 155 and 163).

Development should not commence until finalised detailed surface water drainage designs and calculations for the site, based on sustainable drainage principles, for the development have been submitted to and approved in writing by the Local Planning Authority. The drainage designs should demonstrate that the surface water runoff generated up to and including the 100 year, plus climate change, critical storm will not exceed the run-off from the current site following the corresponding rainfall event.

Development shall not commence until full details of the maintenance and management of the SuDS system is set out in a site-specific maintenance manual and submitted to, and approved in writing, by the Local Planning Authority. The scheme shall subsequently be implemented in accordance with the approved designs.

Please note that Schedule 3 of the Flood and Water Management Act 2010 has not yet been implemented and WSCC does not currently expect to act as the SuDS Approval Body (SAB) in this matter.

Kevin Brook
Flood Risk Management Team

[REDACTED]

From: Alison Cadge [REDACTED]
Sent: 20 December 2019 16:09
To: Paul Cann
Cc: [REDACTED]
Subject: RE: Ford Road, Arundel - consultation response (planning ref. AB/88/19/PL)
Attachments: Ford Road Arundel SW Drainage.pdf; EA final comments.pdf

Hi Paul,

Many thanks for your response below. I will be taking over management of this project now that Jemma has gone on maternity leave.

We can now confirm that the mechanical stopper was removed from the pipe on the 11th December.

Following client team discussions, the proposed development is currently being reviewed to accommodate a diversion of the existing culvert through the development, retaining its upstream inlet point and a downstream outfall into the existing ditch to the northeast. Please see attached for indicative location of this diversion route. You will note this provides an easement of 5.0m from the culvert to the building face, to provide access where required. Please can you confirm this is considered appropriate before we work up the formal plans for the planning submission.

In addition, we note your comments about the SuDS within the floodplain. As you know this is a highly constrained site, and therefore the intention is to adjust the proposed drainage strategy somewhat to try address your concerns, as follows (SDP Consulting Engineers have worked up the following strategy):

- Currently the proposal is still to discharge to the ditch to the northeast via a new connection, at the agreed discharge rate of 4l/s
- The proposal includes three distinct storage zones within car parking, the front block and the rear block.
- To accommodate proposed roof drainage, the proposal can be amended to incorporate raised tanks within the undercroft areas as shown on the attached plan. This will therefore remove this storage from the floodplain. The storage tanks are set above the flood level with an allowance for support and clearance over the top. There is also access to all the tanks from the sides for installation, repair and replacement if damaged. The tanks will need to be sectional to allow this to work. The calculations attached show how the areas are worked out and the storage tanks sized. The roof water from the front and rear blocks is collected into the tanks below the respective buildings. The outfall from the tanks is then restricted to 1l/s before discharging below ground.
- Notwithstanding this, it is not considered feasible to accommodate the car park drainage outside of the floodplain. Therefore, the proposal is to drain the car park area via permeable paving (lined) and permavoid storage crates below the voided stone. As an additional benefit the permeable paving will provide treatment to reduce pollution risks. The whole system then discharges through a single hydrobrake set at 4l/s into the existing ditch as before.

Please can you confirm this is considered an acceptable approach before we work up the formal plans for the planning submission. We should note that this presents the best technically feasible option for this allocated site, taking account of the significant site constraints.

As an aside, we have received the attached formal consultation response from the Environment Agency confirming no objection to the proposals.

We would be very grateful if you could come back to confirm the above as an acceptable approach in principle before we proceed further with detailed plans.

Kind regards,

Alison Cadge
Principal Hydrologist

RSK
18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK

<http://www.rsk.co.uk>

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

Sent: 26 November 2019 15:26

To: Jemma Looney [REDACTED]

Subject: RE: Ford Road, Arundel - consultation response (planning ref. AB/88/19/PL)

Hi Jemma

Sorry it has taken a while to get back to you, as you know we currently have staffing issues. We have however been in correspondence with the Environment Agency (EA) and West Sussex County Council (the Lead Local Flood Authority).

In terms of developing within the fluvial flood plain, I understand that the EA have agreed the principle and flood compensation measures with you. I am unclear as to whether they have agreed proposals for safe access and egress?

In respect to the culverted watercourse passing through the site, I understand that you have stopped up the existing pipe to ascertain whether it is live or not. Firstly, as far as I am concerned, this does not prove whether it is live or abandoned. Secondly it is an offence under the Land Drainage Act 1991 to undertake such practice and I would suggest that the stopper is removed as a priority. From the CCTV survey and manhole survey, there is evidence of connections into the culvert, some of which may be land drains and may not flow until groundwater levels reach a certain level for example, or maybe blocked due to a lack of maintenance, etc. Therefore, there would need to be far more investigations undertaken to determine its current functioning/extent. Since the culvert is within the Internal Drainage District, which is managed by the EA, you will need to continue your discussions with them in this respect. I have briefly discussed the culvert with Hannah Brothwell of the EA (copied into this email). Whilst, you continue discussions with the EA, please could you keep us in the loop, so we can monitor what is agreed/discussed.

With regards to the proposed onsite suds, I understand that any storage/suds at roof level has been dismissed, leaving little option but to consider the provision of storage/suds at/below ground level within the redline boundary of the development. As you are aware, this would mean locating the suds within the fluvial flood plain and will either increase flood risk to the surrounding area (and potentially increase pollution risk due to the parking areas involved) should the suds system become overwhelmed with flood plain water, or be virtually impossible to achieve without allowing flood plain water to infiltrate the suds. On that basis, we will be maintaining our objection, until such time that you have provided details of a viable alternative solution.

Regards

Paul Cann
Senior Engineer (Drainage & Coastal)

Paul Cann | Senior Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First 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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From: Jemma Looney [REDACTED]

Sent: 20 November 2019 17:17

To: Paul Cann <Paul.Cann@arun.gov.uk>; Roger Spencer <Roger.Spencer@arun.gov.uk>
[REDACTED]

Subject: RE: Ford Road, Arundel - consultation response (planning ref. AB/88/19/PL)

Good Afternoon Paul/Roger,

Please can you provide a response to our email enquiry below as soon as possible. If you could let us know when we're likely to receive a response, that would be very helpful.

We look forward to hearing from you.

Kind regards,

Jemma Looney
Principal Hydrologist

RSK
18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK

[REDACTED]
<http://www.rsk.co.uk>

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From: Jemma Looney
Sent: 07 November 2019 11:17
To: paul.cann@arun.gov.uk; Roger.Spencer@arun.gov.uk

Subject: RE: Ford Road, Arundel - consultation response (planning ref. AB/88/19/PL)

Good Morning Paul/Roger,

Further to my conversation with Roger last week, please can you provide an update on when we'll likely receive a response to the email below. Our client team has a meeting with the case officer next Wednesday so if we could obtain any comments prior to this, that would be very helpful.

We look forward to hearing from you.
Kind regards,

Jemma Looney
Principal Hydrologist

RSK
18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK

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From: Jemma Looney
Sent: 18 October 2019 12:52
To: paul.cann@arun.gov.uk

Subject: FW: Ford Road, Arundel - consultation response (planning ref. AB/88/19/PL)

Good Afternoon Paul,

We have recently received consultation comments from Laura Gibbons in respect of planning application AB/88/19/PL. I understand Laura has now left Arun District Council and that you may be the best person to contact in her absence.

Please see the email below and attachments, providing a response to the comments received by Laura.

Please can you confirm this is something you are best placed to respond on and provide any comments at your earliest convenience.

Kind regards,

Jemma Looney
Principal Hydrologist

RSK
18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK

<http://www.rsk.co.uk>

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From: Jemma Looney
Sent: 18 October 2019 11:51
To: Laura Gibbons <Laura.Gibbons@arun.gov.uk>

Subject: Ford Road, Arundel - consultation response (planning ref. AB/88/19/PL)

Good Morning Laura,

In relation to planning application AB/88/19/PL, we have received your consultation comments dated 5th September (attached here for reference). In response, we have drafted the attached off-the-record letter that we would appreciate your review and comments on.

We look forward to hearing from you in order to progress the application further.

Kind regards,

Jemma Looney
Principal Hydrologist

RSK
18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK

<http://www.rsk.co.uk>

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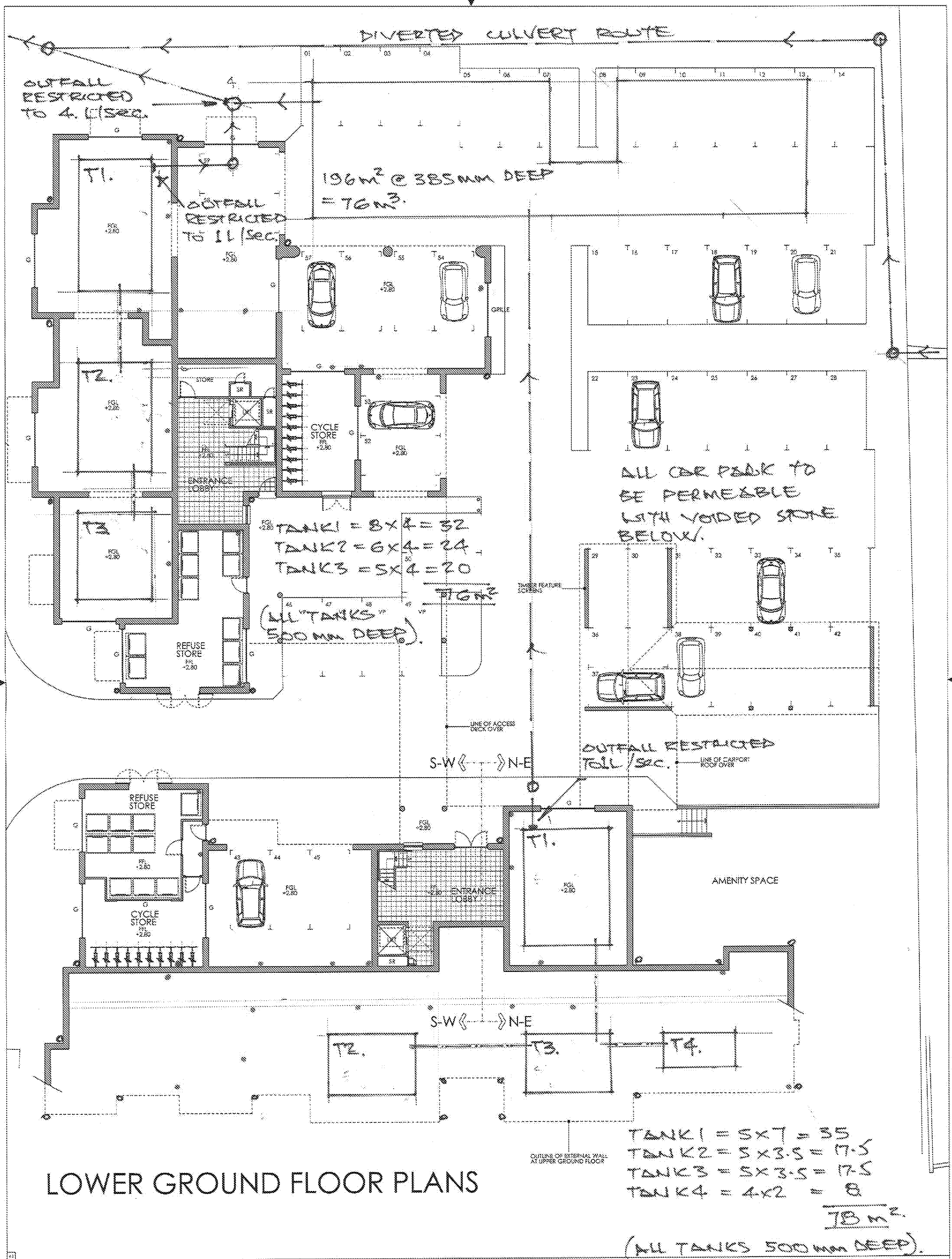
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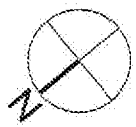
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LOWER GROUND FLOOR PLANS

TOWN PLANNING ARCHITECTS			
ARCHITECTURE & TOWN PLANNING & URBAN DESIGN			
RESIDENTIAL DEVELOPMENT			
FORD ROAD			
ARUNDEL			
FOR OAKFORD HOMES			
DATE	25/01/19	AC	DP
PROJECT	PP1249/110-01	PP	P3

PRELIMINARY ISSUE



VP - VISITOR PARKING
G - GRILLED OPENINGS
FGL - FINISHED GROUND LEVEL
FFL - FINISHED FLOOR LEVEL

E19-003-SK01.

SDP

CONSULTING
ENGINEERS

Job

FORD ROAD
ARUNDEL.

Sketch No.

E19-003
SK 02.

Date
DEC '19

Drawn
NG

Scale

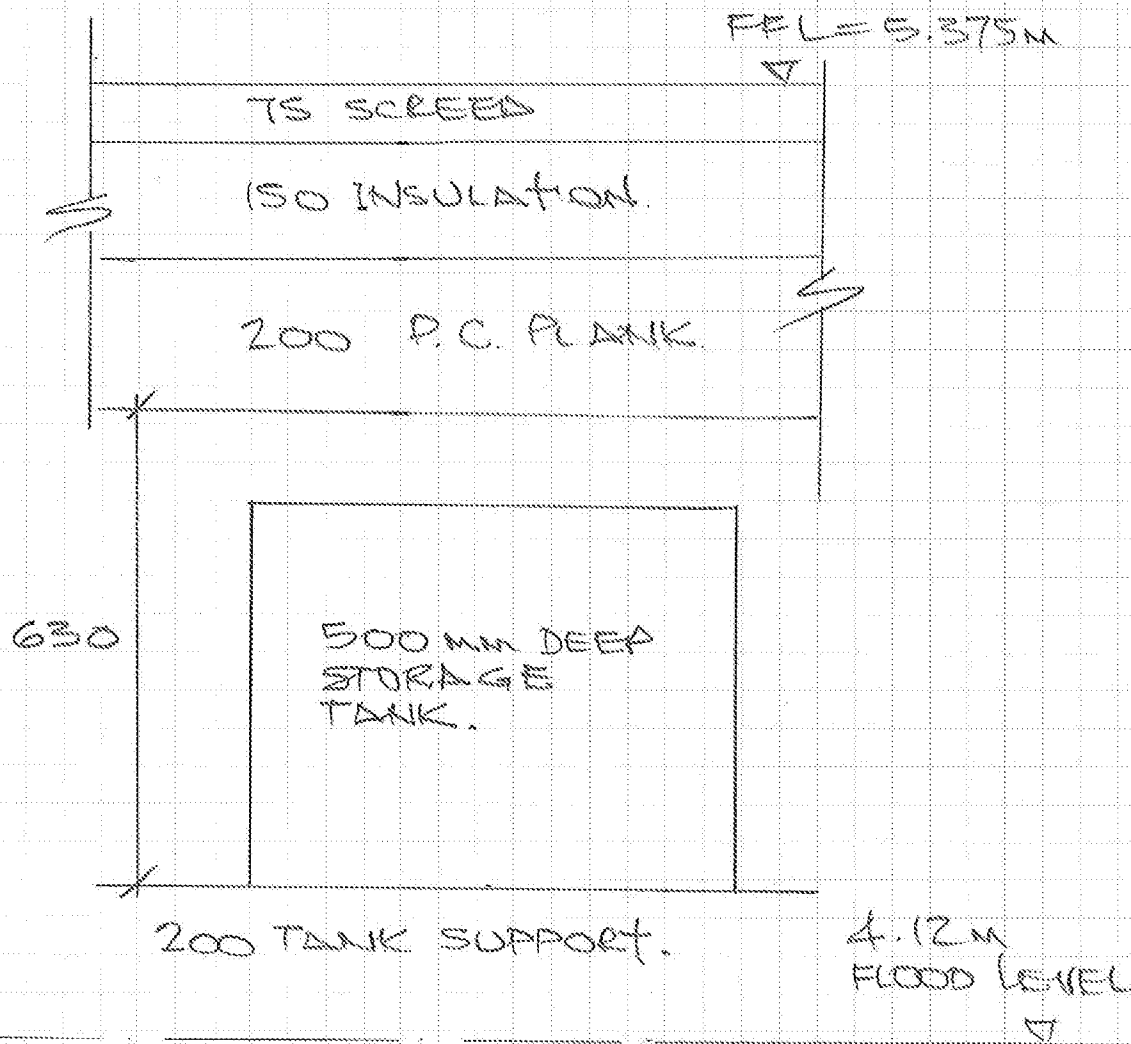
1:10

Title

SURFACE WATER
STORAGE.

Checked

Passed



TYPICAL SECTION.
THRO' TANK.

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Tel: 01727 844606 Fax: 01727 830771
mail@sdpce.co.uk www.sdpce.co.uk

Southern Office: 21a Bargates, Christchurch,
Dorset BH23 1QD
Tel: 01202 490600 Fax: 01202 490601
sdpsouth@sdpce.co.uk www.sdpce.co.uk

SDP

CONSULTING
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Calculation Sheet

Job	FORD ROAD ARLWDEL.	Date	DEC '19	Designer	NG	Job No.	E19-008	Page	1 - 01
Ref:	Calculation						Output		
	<u>SURFACE WATER STORAGE VOL'S.</u> <u>ROOF AREA.</u> FRONT BLOCK. = $42.5 \times 16 = 680 \text{ m}^2$ BACK BLOCK = $24 \times 21 = 504 \text{ m}^2$ DECK. = $(11.5 \times 8.5) + (2 \times 2.5) + (2 \times 3) = 133 \text{ m}^2$ ROAD & CAR PARK = $44 \times 22 = 968$ $12 \times 12 = 144$ $8 \times 8 = 72$ $14 \times 5 = 70$ <u>1254 m²</u> TOTAL SURFACE WATER STORAGE REQUIRED = 151 m^3 ROAD & CAR PARK / ROOF = 50/50 $\therefore$ ROOF STORAGE = 76 m^3 SPLIT BETWEEN THE 2 BLOCKS FRONT = 51% = 39 m^3 REAR = 49% = 37 m^3						1317 m ²		

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SDP CONSULTING ENGINEERS		Calculation Sheet		
Job FORD ROAD ARUNDEL.	Date DEC/19.	Designer NG	Job No. E19-003	Page 1-02
Ref:	Calculation		Output	
	<u>FRONT BLOCK</u> STORAGE TANKS = 500 dp. $\text{SQ M STORAGE} = \frac{39}{0.5} = 78 \text{ m}^2$ TANK 1 = $5 \times 7 = 35$ TANK 2 = $5 \times 3.5 = 17.5$ TANK 3 = $5 \times 3.5 = 17.5$ TANK 4 = $4 \times 2 = 8$ 78 m^2			
	<u>REAR BLOCK.</u> STORAGE TANKS = 500 dp $\text{SQ M STORAGE} = \frac{37}{0.5} = 74 \text{ m}^2$ TANK 1 = $8 \times 4.0 = 32$ TANK 2 = $6.0 \times 4.0 = 24$ TANK 3 = $5 \times 4.0 = 20$ 76 m^2			

Arun District Council
Development Control
1, Arun Civic Centre Maltravers Road
Littlehampton
West Sussex
BN17 5LF

Our ref: HA/2019/121572/01-L01
Your ref: AB/88/19/PL

Date: 01 October 2019

Dear Sir/Madam

**38 NO RESIDENTIAL APARTMENTS (9 NO 1-BED UNITS & 29 NO. 2-BED UNITS)
ALONG WITH ACCESS, OFF-STREET PARKING, AMENITY SPACE &
ENHANCEMENTS TO THE LOCAL FOOTPATH NETWORK.**

LAND AT ELECTRICITY SUB STATION FORD ROAD ARUNDEL BN18 9DX

Thank you for the consultation on the above application , please quote our reference on all correspondence.

Environment Agency position

The proposed development will only meet the National Planning Policy Framework's requirements in relation to flood risk if the following planning condition is included.

The development shall be carried out in accordance with the submitted flood risk assessment (written by RSK, dated June 2019) and the following mitigation measures it details:

- **Finished floor levels for habitable accommodation shall be set no lower than 5.3 metres above Ordnance Datum (AOD)**
- **Compensatory storage shall be provided in accordance to drawing number 10-12 rev. P4 contained in Appendix N of the FRA.**

These mitigation measures shall be fully implemented prior to occupation and subsequently in accordance with the scheme's timing/phasing arrangements. The measures detailed above shall be retained and maintained thereafter throughout the lifetime of the development.

Reason(s)

To reduce the risk of flooding to the proposed development and future occupants

To prevent flooding elsewhere by ensuring that compensatory storage of flood water is provided.

Our response to this application is on the understanding that Arun District Council is satisfied that the Sequential test has been adequately demonstrated to the requirements set out in the national Planning Policy framework (NPPF).

Informatives

Any works in, under or over, or within 5 metres of an IDB ditch or Ordinary Watercourse will need a Flood Defence Consent from the Environment Agency or West Sussex County Council respectively.

Advice to Local Planning Authority

Voids should be designed to allow the free flow of water up to and including the 1 in 100 flood event, with an allowance for climate change. Openings should be designed to be as large as feasible within the proposed development. Individual openings should be a minimum of 1 metre wide by the height of the predicted depth of flooding (including an allowance for climate change), from the existing ground level.

Voids should be kept open and maintained as such in perpetuity. It is imperative that the void space beneath the dwelling is kept free from debris throughout the lifetime of the development. This enables the voids to fulfil their flood storage role. The local planning authority should be satisfied that this is achievable and may wish to consider including a condition on any decision notice where permission is granted or requiring the applicant to enter into a legal agreement.

We do not normally comment on or approve the adequacy of flood emergency response procedures accompanying development proposals, as we do not carry out these roles during a flood. Our involvement with this development during an emergency will be limited to delivering flood warnings to occupants/users covered by our flood warning network.

The planning practice guidance (PPG) to the National Planning Policy Framework states that, in determining whether a development is safe, the ability of residents and users to safely access and exit a building during a design flood and to evacuate before an extreme flood needs to be considered. One of the key considerations to ensure that any new development is safe is whether adequate flood warnings would be available to people using the development.

In all circumstances where warning and emergency response is fundamental to managing flood risk, we advise local planning authorities to formally consider the emergency planning and rescue implications of new development in making their decisions. As such, we recommend you consult with your emergency planners and the emergency services to determine whether the proposals are safe in accordance with the guiding principles of the PPG.

Advice to applicant

We strongly recommend the use of flood resistance and resilience measures. Physical barriers, raised electrical fittings and special construction materials are just some of the ways you can help reduce flood damage.

To find out which measures will be effective for this development, please contact your building control department. In the meantime, if you'd like to find out more about reducing flood damage, visit the Flood Risk and Coastal Change pages of the planning practice guidance. The following documents may also be useful:
Department for Communities and Local Government: Preparing for floods
<http://www.planningportal.gov.uk/uploads/odpm/4000000009282.pdf>
Department for Communities and Local Government: Improving the flood performance of new buildings: <https://www.gov.uk/government/publications/flood-resilient-construction-of-new-buildings>

Please do not hesitate to contact me on the below should you have questions.

Yours faithfully

Miss Suz Greenwood
Planning Advisor, Environment Agency

