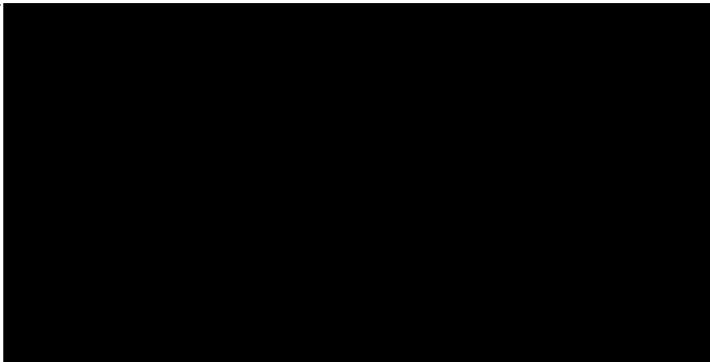
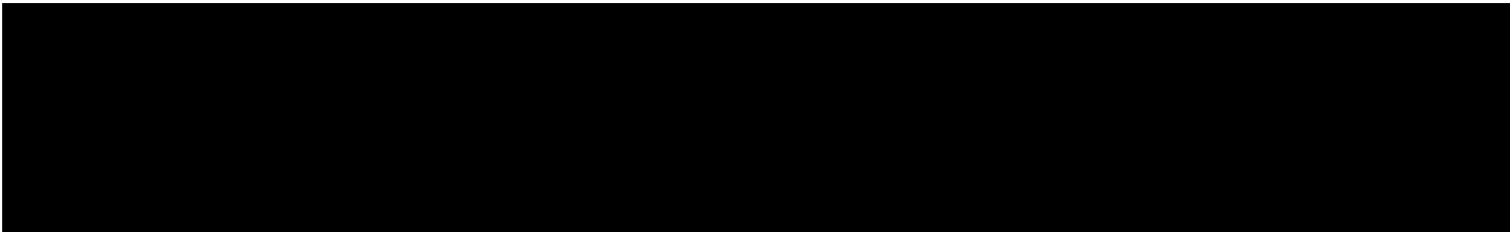




From: Nia Russell [REDACTED]
Sent: 23 October 2017 11:52
To: Michael Eastham
Cc: Arfon Hughes
Subject: Fwd: Saltbox, Bognor Regis - Heads of Terms

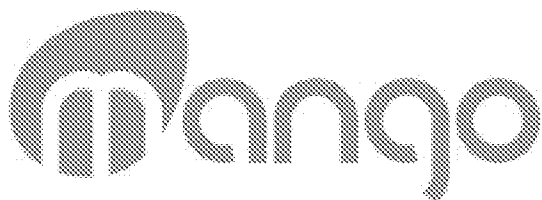
Michael

Please see below response from our engineers in relation to the water treatment plant.

Regards

Nia

Nia Russell
Associate
Mango Planning & Development Limited
Number One Waterton Park
Bridgend CF31 3PH



Begin forwarded message:

From: karen jenkins [REDACTED]
Subject: RE: Saltbox, Bognor Regis - Heads of Terms
Date: 23 October 2017 at 11:04:11 BST
To: Arfon Hughes [REDACTED]
Cc: Nia Russell [REDACTED] Reg Kirk [REDACTED]

Arfon,

See below our response:

In the design of a new foul water sewerage network for any new development, the first action is to check if there's a public sewer nearby.

Sewerage systems in small rural communities typically comprise of either; gravity public sewers, septic tanks and package wastewater treatment plants. It is often the case that foul drainage systems have been overwhelmed and do not have capacity to take additional flows from new development schemes.

For the Saltbox parcel (which forms part of the Bognor Enterprise Zone), Southern Water, as the local water authority, were contacted and confirmed that there is currently no means of disposal for the foul water at the site, and the local sewerage infrastructure does not have capacity to take the proposed foul water flows from site. If a site has no means of drainage to an existing public sewer due to third party land, the developer can formally request a new public sewer. This means that the water authority can provide a foul water sewer to serve the site.

The application should be used to requisition a new public sewer or public lateral drain under Section 98 (S98) of the Water Industry Act 1991 and the Water Act 2003 where you propose to design and construct the works under Section 30 of the Anglian Water Authority Act 1977.

A S98 solution was been prepared by Southern Water in May 2015 for the site, that indicates costs associated with a pumped system. Based on the information within the report, 674m of a 2m deep rising main and assuming £1000/m construction cost. The works are therefore valued at CRICA £700,000 which is to be paid by the developer. Based on this value, it is not financially viable for the development to progress with the Section 98 Application. In addition, based on other similar schemes, it is estimated that the S98 design process will take between 52-78 weeks before works can start on site.

In general, if there is a good reason why you can't connect to the sewer (e.g. there is a river or a hill in the way) then the developer must apply for a permit so that the Environment Agency can decide whether to allow you to use a sewage treatment plant instead. The environment Agency were consultant as part of the hybrid planning application and did not object to the proposals. NB, it is the intention to progress with the approval process once planning permission is granted as part of the detailed drainage design.

Initially, a 3 stage wastewater system is proposed for the Saltbox site to deal with the foul water flows. The sewage is first settled to remove the solids and then biologically treated in an aerated biozone, consisting of rotating discs, or air injection, with a final settlement stage to remove the fine solids. The effluent is discharged, on average, 95% clean, to a land drainage system, then finally the watercourse, (subject to Local Authority and Environment Agency Consents).

Maintenance and emptying is required at regular intervals, depending on the percentage occupancy and the plant design loads. This interval varies from plant to plant and many Treated wastewater effluent should be clear, odourless and free from suspended solids. For the Saltbox scheme the system is to be made resilient to flooding given the proximity to the flood zones.

The treatment system must meet the relevant British Standard at the time of installation. The standards currently in force for new systems are BS EN 12566. The clean treated discharge is subject to Environment Agency 'Consent to Discharge', prior to any flows being discharged directly the watercourse.

The Environment Agency and SEPA specify that a discharge has to meet certain discharge standards or consent limits. These are either 'descriptive' or 'numeric'. A descriptive consent limit means that as long as the effluent looks clear and doesn't appear to have a detrimental effect on the environment then it is clean enough to discharge.

It is anticipated that the foul water treatment plant will be overall more financially viable for the scheme, although the final costs are still TBC. In relation to the programme, it is expected will take less time to implement. Hence, is the preferred option for the disposal of foul water sewerage from the proposed Saltbox site.

Hopefully this meets your requirements, but if you need any further detail please let me know.

Regards

Karen Jenkins

Director

kirksaunders

associates

w: www.kirksaunders.co.uk

a: Templegate House, 115-123 High Street, Orpington, Kent BR6 0LG

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From: Michael Eastham <Michael.Eastham@arun.gov.uk>

Date: 19 October 2017 at 08:30:35 BST

Cc: "Nia Russell"

Subject: FW: Saltbox, Bognor Regis - Heads of Terms

Hi Arfon,

In Nia's absence, there are just two design details that have arisen regarding the Unit 2 Warehouse:

- 1) Does the Unit need to have security fencing (and gates) around it?
- 2) Does the acoustic fencing need to be 4.0 metres high? Could it be lower in height?

Plus a water treatment plant question:

- 3) The Environment Agency normally discourages the use of on-site water treatment plants. Do you need an on-site water treatment plant?

Regards,

Michael

From: Michael Eastham
Sent: 19 October 2017 08:28
To: 'Nia Russell'
Cc: 'Hyland, Hannah'
Subject: RE: Saltbox, Bognor Regis - Heads of Terms

Nia,

There are just two design details that have arisen regarding the Unit 2 Warehouse:

- 1) Does the Unit need to have security fencing (and gates) around it?
- 2) Does the acoustic fencing need to be 4.0 metres high? Could it be lower in height?

Plus a water treatment plant question:

- 3) The Environment Agency normally discourages the use of on-site water treatment plants. Do you need an on-site water treatment plant?

Regards,

Michael

From: Nia Russell [REDACTED]
Sent: 18 October 2017 09:32
To: Michael Eastham
Subject: Re: Saltbox, Bognor Regis - Heads of Terms

Michael

Please can you confirm if there is anything else you require from our team at this stage to finalise your committee report? I am in the office today but out tomorrow and Friday so please let know if there is anything you need.

You will have seen that a further updated FRA has been sent to Charlotte for comment.

Regards

Nia

Nia Russell
Associate
Mango Planning & Development Limited
Number One Waterton Park
Bridgend CF31 3PH
[REDACTED]
[REDACTED]

