

Your handy guide to Vacuum Sewerage Systems



Vacuum sewerage systems are different to conventional gravity systems in that connections can only be made to a vacuum pot (the chambers on the vacuum system) and not directly to the vacuum pipework. Vacuum pots have limited capacity and are only able to accept connections from 4 properties.

Rider sewers in vacuum system areas are conventional gravity sewers that discharge flows to an existing vacuum pot. If there is a rider sewer available, you may be able to make a gravity connection to the rider sewer providing there is available spare capacity within the vacuum pot that the rider sewer is connected to. A maximum of 4 properties are permitted to connect to a rider sewer.


For developments comprising residential dwellings only, the flow restriction to the pot and rider sewer is stated as 4 properties. For developments comprising non-household buildings, or a combination of residential and non-

household buildings we apply a 0.5 litres per second flow restriction to the pot and the rider sewer.

Connections into vacuum pots and rider sewers are only permitted via gravity; pumped connections are not permitted to a vacuum sewerage system.

Surface water must not under any circumstances be discharged to a vacuum sewer. Alternative arrangements for surface water disposal would need to be explored in accordance with Anglian Water's [Surface Water Drainage Policy](#)





Vacuum sewerage systems also include feeder pillars which are located above ground and adjacent to the vacuum pots. These pillars are a part of the public sewerage network and may under some circumstances need to be moved to accommodate new development. Should the relocation of a feeder pillar (or any other part of the vacuum system) be necessary you will be required to make an application for a Sewer Diversion and enter into a legal agreement with Anglian Water before any works take place. You will be required to fund the works and employ the appropriate Vacuum contractor (we will advise who this is) to design and undertake the works on your behalf.

Each vacuum sewerage system is bespoke and designed only for the dwellings it was built to serve. Due to the very nature of the system, there may be mitigation required to ensure there is enough pressure to accommodate the development and to ensure there is no detriment to the existing network and the properties connected. In addition, if there is insufficient capacity downstream of your point of connection, which is to a minimum 125mm vacuum sewer, it is Anglian Water's responsibility to undertake the necessary work to provide this. Please be aware that the delivery of these works could take up to 24 months and that we are unable to commence the delivery process until 1) you have made us aware of your development and 2) you have been granted planning permission.

If we are unable to deliver the required upgrade works in time for your development, you may be required to provide a stand-alone treatment plant to serve your development. This would require approval from the Environment Agency and the Building Control Body.

If you have a development within a vacuum sewerage area, we strongly recommend that you make use of our pre-development enquiry service, which will help in the following ways: -

- We will understand available capacity
- We will provide you with the location of your connection point
- We will advise you of any capacity or pressure constraints which may impact the timescales of your development
- We will advise you whether any mitigation work is required
- We will undertake a pressure monitor assessment to understand the impact on the network. This assessment may change the location of your connection point or identify additional mitigation measures. If there are any changes following the completion of the assessment, we will discuss these with you.



In order to allow time for all necessary assessments to be completed, it may take up to 2 months for a response to be provided to your pre-development enquiry.

A list of areas where we currently have vacuum sewerage systems is available on our website.

If you have planning permission and are ready to connect, you can apply to connect to the public sewer. All applications can be made via our online portal Inflow which you can register for/ log on to via our website - www.anglianwater.co.uk - developing - Inflow icon in the top right hand corner.



Connecting to a Vacuum Sewerage System

When we receive your application to connect to the public sewer, we will undertake an initial site assessment to establish whether a vacuum pot exists with spare capacity to accept a gravity connection from your development. Once we have undertaken our initial assessment, we will let you know how to progress your application.

If there is a vacuum pot or rider sewer with the spare capacity to serve your development that can be connected to by gravity, this will be your designated point of connection. You will be required to undertake all works necessary to connect the property(s) to the vacuum pot or rider sewer.

If there are no pots available to serve your development, we will progress in one of two ways depending on the type and number of properties you are planning to build.

New developments comprising one household plot or one existing household property

If your development is for one new household plot or one existing household property, we will deliver a new vacuum pot for you to connect to. We will instruct one of our delivery partners to design and deliver the works and they will contact you to undertake an initial scoping visit to discuss the works required. The works we will undertake is limited to the following: -

- One new vacuum pot including all valves and a stub pipe* for you to connect to.
- A connection to the existing vacuum main and a maximum of 5m of vacuum main between the existing vacuum main and the new pot.
- All other related works, road closures, reinstatement etc.

**the stub pipe is a short length of pipe that is provided to preclude the need for you to break into the new pot. It is not a section of pipe (lateral) that extends from the pot to the site boundary.*

If 5m of vacuum main does not position the new pot close enough to your development to permit a gravity connection, or if you require the pot brought closer for your convenience you will be required to fund the additional vacuum main required to achieve this. We will provide a cost for the works you are required to fund, and we will require payment in full before works commence on site. The costs will be reconciled upon completion of the works and you will be invoiced for any payment shortfall or reimbursed the value of any overpayment.

Should you require a lateral pipe to be laid from the new pot to the site boundary you will be required to fund this part of the work in the same way as outlined above.

You will be required to undertake all works necessary to connect the property to the new vacuum pot or lateral (if one is provided).

New developments comprising two or more household plots and non-household developments comprising commercial or trade premises

If your development comprises two or more household plots or comprises the development of commercial or trade premises you will be required to undertake, and fund all works necessary to connect the development to the vacuum system including the installation of any new vacuum pots and any extension of the vacuum main.

The new vacuum system will need to be compatible with the existing vacuum system to ensure that the new system functions effectively. The new vacuum system can only be designed and constructed by a specialist vacuum manufacturer and we will advise which manufacturer you need to employ. We will also advise you which part of the existing network the vacuum main extension needs to be laid from and this will generally be a section of main that is 125mm diameter or greater. In some cases, at your request, we may consider an extension being laid from a section of main that is smaller than 125mm diameter. However, this will require a further assessment, which you will be required to fund.

Please also be aware that for a vacuum main extension to be viable, your development will need to be situated within a certain distance of the vacuum pumping station. Each vacuum system is different and therefore we will need to make an assessment for each development. There may be additional mitigation required if your conveyance exceeds the maximum distance from a vacuum pumping station or alternative methods of foul water disposal may be required.

A vacuum main cannot be extended from a rider sewer.

You are also required to apply to have the new vacuum main/vacuum pots adopted by Anglian Water. To do this you will need to apply for the adoption of a new sewer via our online portal Inflow as outlined above.

For more information, visit www.anglianwater.co.uk or scan the QR code below.



love every drop
anglianwater

