

Pre-Planning Assessment Report

Salhouse Road, Sprowston

Section 1: Proposed Development

Thank you for submitting a pre-planning enquiry. This has been produced for Richard Jackson Ltd. Your reference number is **00023059**. If you have any questions upon receipt of this report, please contact the Pre-Development team on 01733 414690 or email planningliaison@anglianwater.co.uk.

The response within this report has been based on the following information which was submitted as part of your application:

List of Planned Developments	
Type of Development	No. Of Units
C3 Dwellings	2033
D1 Non-residential	1

The anticipated residential build rate is:

Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Build Rate	50	200	200	200	200	200	200	200	200	200	183

- The grid reference for the site is TG2681912031
- The site currently does not have planning permission and is located on a greenfield site.

Disclaimer: The accuracy of this report is therefore not guaranteed and does not obviate the need to make additional appropriate searches, inspections and enquiries. You are advised therefore to renew your enquiry should there be a delay in submitting your application for water supply/sewer connection to re-confirm the situation.

Section 2: Assets Affected

Our records indicate that we have the following types of assets within or overlapping the boundary of your development site as listed in the table below.

Additionally, it is highly recommended that you carry out a thorough investigation of your proposed working area to establish whether any unmapped public or private sewers and lateral drains are in existence. We are unable to permit development either over or within the easement strip without our prior consent. The extent of the easement is provided in the table below. Please be aware that the existing water mains/public sewers should be located in highway or open space and not in private gardens. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.

Water and Used Water Easement Information		
Asset Type	Pipe Size (mm)	Total Easement Required (m)
Public Foul Sewer	450	3.0 m either side of the centre line
Public Foul Sewer	280	3.0 m either side of the centre line

If it is not possible to avoid our assets then the water main/sewer may need to be diverted in accordance with Section 185 of the Water Industry Act (1991). We have a duty to divert our sewerage infrastructure if requested to do so although this would be at your expense. You will need to make a formal application if you would like a diversion to be considered. A copy of the section 185 diversion application form can be found at www.anglianwater.co.uk/developers

Due to the private sewer transfer in October 2011 many newly adopted public used water assets and their history are not indicated on our records. You also need to be aware that your development site may contain private water mains, drains or other assets not shown on our records. These are private assets and not the responsibility of Anglian Water but that of the landowner.

Section 3: Water Supply

In examining the available capacity for your development site we assess the capacity and costs for two categories of water main. These are:

Strategic – these are the offsite potable water mains which deliver water within an area to a large number of development sites often across a number of towns. The strategic provision of these water mains enables us to provide of the cheapest solution across a large geographical area.

Local reinforcement – these are the offsite potable water mains that connect your site to the closest available public water main. Alternatively, reinforcement may be needed to protect existing houses against the loss of water or water pressure.

On most sites we also have two categories of water mains the **Spine Mains** and **Housing Estate Mains (HEMS)**. To support your budgeting arrangements we have also examined the estimated cost for delivering the onsite water mains needed for a site of your size.

Water Supply Network

Your site will benefit from the strategic water main(s) listed below. The strategic scheme(s) has/have been designed to cater for the predicted housing growth in the area. All developments that benefit from this/these strategic water scheme(s) will be required to make a contribution proportional to their flow demand. Contribution is based on a litre per second requirement. For more detail on the flow rates please see below. More information is provided in the costing section of this report.

Currently, there is no expectation that there will be a need for any local reinforcement. However, capacity can be reduced at any time due to an increased demand from existing commercial and residential housing as well as from new developments. You are therefore recommended to formally apply for a connection at your earliest convenience.

The connection point for the site will be from the existing 225 mm HPPE water main in Atlantic Avenue at National Grid Reference (NGR) TG2632212171.

Water Budget Costs

The costs provided in this report are based on the current information available. These costs are provided as an indicative estimate to help inform you on a budget for supplying water to your site.

- The **strategic costs** are based on a proportion of the total strategic scheme cost. These costs are calculated based on the flow rate that your development requires as compared to the total flow rate that the strategic main has been designed against.

- The **local reinforcement** costs have been calculated based on the typical costs of providing a length of water main across a similar distance as required for this development site.
- The onsite **Spine mains** and **HEMS** costs are provided based on historic Anglian Water construction information.

Based on these estimated and predicted costs, the cost to provide water to your site:

Predicted costs for supplying water to your development		
Strategic Water Mains	Based on	Cost
Spixworth WB	21.696 l/s	£ 210,849.97
Estimated Local reinforcement Mains	N/A	
Estimated Onsite Water Mains		
Onsite water mains costs		£ 1,219,800.00
Total Cost for providing the water infrastructure		£ 1,430,649.97

The above table provides an estimated breakdown of the costs to supply the water infrastructure. A more detailed cost provision will be provided following a formal application for a new water mains or water connection.

Financing your water costs

You will be required to partly contribute towards the cost of supplying water to your site. The amount that you contribute is dependent on your preferred method of financing the site. The Water Industry Act enables you to finance the water mains via either the relevant deficit or discounted aggregate deficit. A full breakdown of these methods is provided on our website at www.anglianwater.co.uk/developers.

In essence, the two deficit options allow us to offset future revenue (from the end customer after they purchase your houses) from the scheme cost. The scheme cost is determined as a hypothetical fixed rate loan provided over 12 years. The two statutory options are:

1. **Relevant deficit.** This takes the actual annual revenue offset from the actual annual scheme cost repayment. The difference is paid every year over the first twelve years of your site or until the revenue exceeds the annual scheme cost.
2. **Discounted aggregate deficit.** This enables us to offset the estimated future revenue from the scheme cost. This is calculated over the first twelve years of your site and a commuted sum is calculated as an upfront net present value amount.

Your estimated contribution towards the construction costs are provided in the table below:

Scheme Title:	Salhouse Road, Norwich
Developer:	Richard Jackson Ltd

Year	Occupation Rates
1	50
2	250
3	450
4	650
5	850
6	1050
7	1250
8	1450
9	1650
10	1850
11	2033
12	2033
Total	2033

Estimated Construction costs	
Onsite water	£ 1,219,800
Offsite water	£ 210,850
Estimated Scheme Cost	£ 1,430,650

Your estimated contribution towards construction costs	
Relevant Deficit	£ 358,106
Discounted Aggregate Deficit	£ 339,203

In addition, you also have the ability to construct the onsite water mains under a self-lay agreement. In such cases, an Asset Payment is made by Anglian Water following commissioning and adoption of the assets. The Asset Payment is calculated as required in the Water Act 2003. For more information on the self-lay of water mains please see www.anglianwater.co.uk/developers/self-lay.

You will also need to budget for both infrastructure charges and connection costs. The 2017/18 charges are:

Infrastructure Charge	£361.00	per connection
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Please note that we offer alternative types of connections depending on your needs and these costs are available in our annual charges booklet, which can be downloaded from www.anglianwater.co.uk/developers/charges.

Section 4: Water Recycling Services

In examining the used water system we assess the ability for your site to connect to the public sewerage network without causing a detriment to the operation of the system. We also assess the receiving water recycling centre and determine whether the water recycling centre can cope with the increased flow and influent quality arising from your development.

Water Recycling Centre

The foul drainage from the proposed development is in the catchment of Whittingham Trowse Water Recycling Centre, which currently has capacity to treat the flows from your development site. Anglian Water cannot reserve capacity and the available capacity at the water recycling centre can be reduced at any time due to growth, environmental and regulation driven changes.

Used Water Network

Anglian Water has assessed your proposals and a desktop study has indicated that a direct connection to the public foul sewerage system is likely to have a detrimental effect on the existing sewerage network. Therefore further hydraulic assessment is required to enable Anglian Water to provide you with a solution for draining the foul flows from the proposed development. There is no additional charge for this work.

Rob Morris, our Pre-Development Senior Engineer for this area, will be responsible for undertaking this additional work. Rob will contact you shortly to discuss the timescales and to obtain any further information required. For your reference, Rob can be contacted on 07702 341018 or at rmorris2@anglianwater.co.uk.

If this modelling work confirms your development will have a detrimental effect on the existing sewerage network, the drainage strategy will be detailed within the pre-planning addendum report. This will be issued to you under separate cover within the timescales advised by Rob. This will include a no detriment foul drainage solution which will encompass a connection point, details of any upgrades or work required and indicative budgetary costs.

If an alternative drainage solution is required following the work undertaken for the pre-planning addendum report, any additional hydraulic modelling work will be at the cost of the developer. A cost and timescale is available upon request.

Please note that Anglian Water will request a suitably worded condition at planning application stage to ensure the strategy is implemented to mitigate the risk of flooding.

Surface Water Disposal

You indicated on the Pre-Planning Application form that a connection to the public surface water sewer network is not required as infiltration techniques can be utilised. Therefore a capacity assessment has not been made on the public surface water network.

As you may be aware, Anglian Water will consider the adoption of SuDs provided that they meet the criteria outline in our SuDs adoption manual. This can be found on our website at <http://www.anglianwater.co.uk/developers/suds.aspx>. We will adopt features located in public open space that are designed and constructed, in conjunction with the Local Authority and Lead Local Flood Authority (LLFA), to the criteria within our SuDs adoption manual. Specifically, developers must be able to demonstrate:

1. Effective upstream source control,
2. Effective exceedance design, and
3. Effective maintenance schedule demonstrating that the assets can be maintained both now and in the future with adequate access.

If you wish to look at the adoption of any SuDs then an expression of interest form can be found on our website at: <http://www.anglianwater.co.uk/developers/suds.aspx>

Trade Effluent

We note that you do not have any trade effluent requirements. Should this be required in the future you will need our written formal consent. This is in accordance with Section 118 of the Water Industry Act (1991).

Used Water Budget Costs

It has been assumed that the onsite used water network will be provided under a section 104 Water Industry Act application. It is recommended that you also budget for both infrastructure charges and connection costs. The 2017/18 charges are:

Infrastructure Charge	£361.00 per connection
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Please note that we offer alternative types of connections depending on your needs and these costs are available in our annual charges booklet, which can be downloaded from www.anglianwater.co.uk/developers/charges.

Section 5: Map of Proposed Connection Points

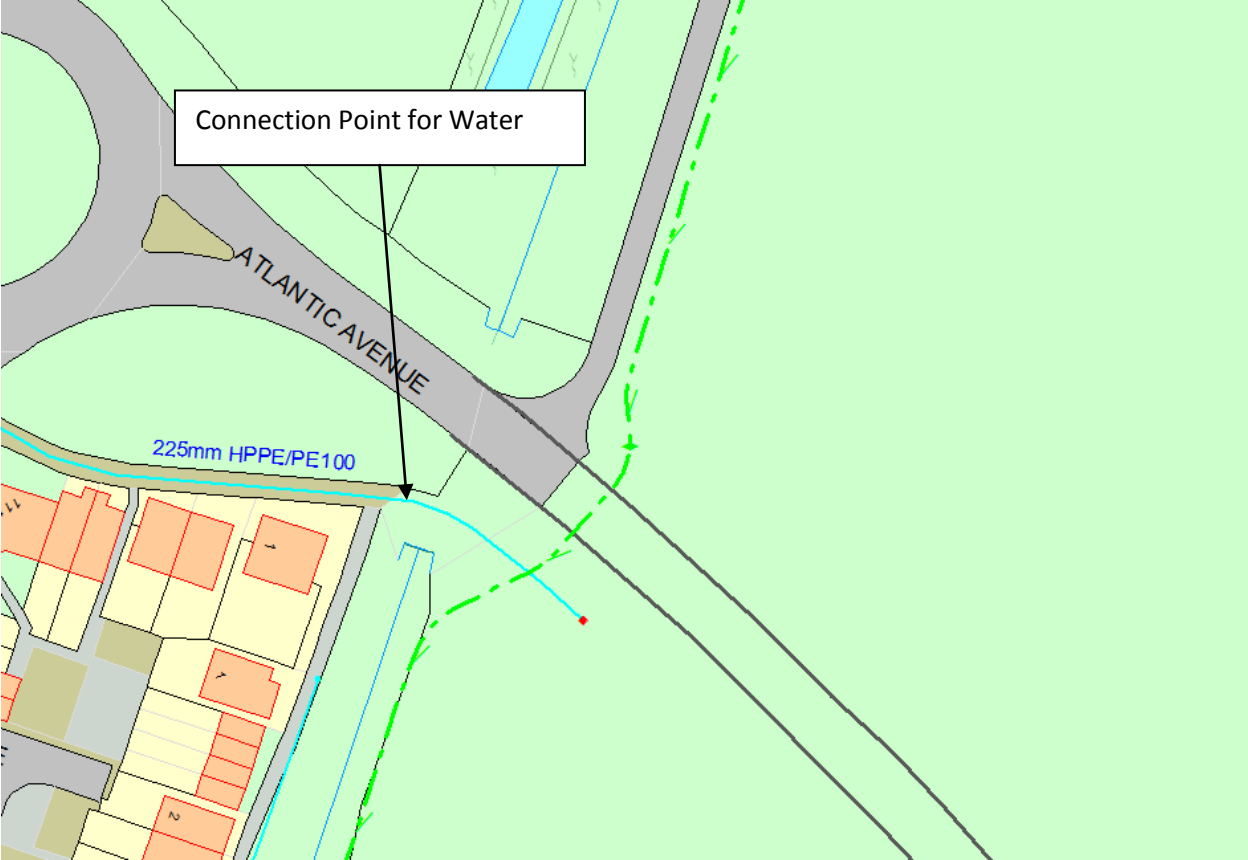


Figure 1: Showing your water point of connection at Atlantic Avenue

Section 6: Useful Information

Water

Water Industry Act – Key Water Sections:

- **Section 41:** This provides you with the right to requisition a new water main for domestic purposes to connect your site to the public water network.
- **Section 45:** This provides you with the right to have a connection for domestic purposes from a building or part of a building to the public water main.
- **Section 51A - E:** This provides you with the right to provide the water main or service connection yourself and for us to vest them into our company.
- **Section 55:** This applies where you request a supply of water for non domestic purposes.
- **Section 185:** This provides you with the right to make a reasonable request to have a public water main, sewer or public lateral drain removed or altered, at your expense. Details on how to make an application and the s185 form is available on our website at <http://www.anglianwater.co.uk20/developers> or via our Developer Services team on 08457 60 66 087.

Details on how you can make a formal application for a new water main, new connection or diversion are available on from our Developer Services team on 08457 60 66 087 or via our website at www.anglianwater.co.uk/developers

If you have any other queries on the rights to requisition or connect your housing to the public water and sewerage infrastructure then please contact our developer services team at: Developer Services, Anglian Water, PO Box 495, Huntingdon, PE29 6YY or Telephone: 0845 60 66 087 or Email: developerservices@anglianwater.co.uk

Water pressure and flow rate: The water pressure and consistency that we must meet for your site is laid out in the Water Industry Act (1991). This states that we must supply a flow rate of 9 litres per minute at a pressure of 10 metres of head to the external stop tap. If your water pressure requirements exceed this then you will need to provide and maintain any booster requirements to the development site.

Self Lay of Water Mains: A list of accredited Self Lay Organisations can be found at www.lloydsregister.co.uk/schemes/WIRS/providers-list.aspx.

Used Water

Water Industry Act – Key Used Water Sections:

- **Section 98:** This provides you with the right to requisition a new public sewer. The new public sewer can be constructed by Anglian Water on your behalf. Alternatively, you can construct the sewer yourself under section 30 of the Anglian Water Authority Act 1977.

- **Section 102:** This provides you with the right to have an existing sewerage asset vested by us. It is your responsibility to bring the infrastructure to an adoptable condition ahead of the asset being vested.
- **Section 104:** This provides you with the right to have a design technically vetted and an agreement reached that will see us adopt your assets following their satisfactory construction and connection to the public sewer.
- **Section 106:** This provides you with the right to have your constructed sewer connected to the public sewer.
- **Section 185:** This provides you with the right to have a public sewerage asset diverted.

Details on how to make a formal application for a new sewer, new connection or diversion are available on our website at www.anglianwater.co.uk/developers or via our Developer Services team on 08457 60 66 087.

Sustainable Drainage Systems:

Many existing urban drainage systems can cause problems of flooding, pollution or damage to the environment and are not resilient to climate change in the long term. Therefore our preferred method of surface water disposal is through the use of Sustainable Drainage Systems (SuDS). SuDS are a range of techniques that aim to mimic the way surface water drains in natural systems within urban areas. For more information on SuDS, please visit our website at <http://www.anglianwater.co.uk/developers/suds.aspx>. We also recommend that you contact the Local Authority and Lead Local Flood Authority (LLFA) for the area to discuss your application.

Private Sewer Transfers: Sewers and lateral drains connected to the public sewer on the 1 July 2011 transferred into Water Company ownership on the 1 October 2011. This follows the implementation of the Floods and Water Management Act (FWMA). This included sewers and lateral drains that were subject to an existing Section 104 Adoption Agreement and those that were not. There were exemptions and the main non-transferable assets were as follows:

- Surface water sewers and lateral drains that did not discharge to the public sewer, e.g. those that discharged to a watercourse.
- Foul sewers and lateral drains that discharged to a privately owned sewage treatment/collection facility.
- Pumping stations and rising mains will transfer between 1 October 2011 and 1 October 2016.

The implementation of Section 42 of the FWMA will ensure that future private sewers will not be created. It is anticipated that all new sewer applications will need to have an approved section 104 application ahead of a section 106 connection.

Encroachment: Anglian Water operates a risk based approach to development encroaching close to our used water infrastructure. We assess the issue of encroachment if you are

planning to build within 400 metres of a water recycling centre or, within 15 metres to 100 metres of a pumping station. We have more information available on our website at <http://anglianwater.co.uk/developers/encroachment.aspx>

Locating our assets: Maps detailing the location of our water and used water infrastructure including both underground assets and above ground assets such as pumping stations and recycling centres are available from www.digdat.co.uk. All requests from members of the public or non-statutory bodies for maps showing the location of our assets will be subject to an appropriate administrative charge. We have more information on our website at: www.anglianwater.co.uk/developers/our-assets/

Summary of charges: A summary of this year's water and used water connection and infrastructure charges can be found at <http://www.anglianwater.co.uk/developers/charges/>

Disclaimer: The information provided within this report is based on the best data currently recorded, recorded within the last 12 months or provided by a third party. The position must be regarded as approximate. If there is further development in the area or for other reasons the position may change.

The accuracy of this report is therefore not guaranteed and does not obviate the need to make additional appropriate searches, inspections and enquiries. You are advised therefore to renew your enquiry should there be a delay in submitting your application for water supply/sewer connection to re-confirm the situation.

Any cost calculations provided within the report are estimated only and may be subject to change.

The responses made in this report are based on the presumption that your proposed development obtains planning permission. Whilst this report has been prepared to help assess the viability of your proposal, it must not be considered in isolation. Anglian Water supports the plan led approach to sustainable development that is set out in the National Planning Policy Framework (NPPF). As a spatial planning statutory consultee, we assist planning authorities in the preparation of a sustainable local plan on the basis of capacity within our water and water recycling (formerly referred to as wastewater) infrastructure. Consequently, any infrastructure needs identified in this report must only be considered in the context of up to date, adopted or emerging local plans. Where local plans are absent, silent or out of date these needs should be considered against the definition of sustainability set out in the NPPF as a whole.

No liability whatsoever including liability for negligence is accepted by Anglian Water Services Limited for any error or inaccuracy or omission including the failure to accurately record or record at all, the location of any water main, discharge pipe, sewer, or drain or disposal main or any item of apparatus.