fentonwilliams



Abdon Close

Design and Access Statement

30/11/23-Rev C

Contents

0.0 Introduction
1.0 Site analysis and Key Issues
2.0 Proposal
3.0 Evaluation of Proposal

0.0 Introduction

Introduction
Executive summary

Site address
18 Abdon Close. Chittern, Warminster, BA12 0LB

Borough
Wiltshire

Ward
Wylye Valley

Conservation area
Chitterne Conservation Area

Heritage listing
None

Existing scenario
The property is an ex. local authority property which is currently in a run down state and is being rennovated by the new owners to make it suitable to rent out to tenants in the near future.

At present, the foul waste from the property is currently routed to a sewage treatment plant system owned by Selwood Housing with a substantial annual maintenance fee. This system serves no. 7-18 Abdon Close. An easement is in place which allows access to the land which is part of the curtilage of 18 Abdon Close.

Scope of Works
The application is for the installation of a new sewage treatment plant which will serve the property to a very high standard and can be operated and maintained by the site owner. This will give them control over the effluent quality, management and operating costs.

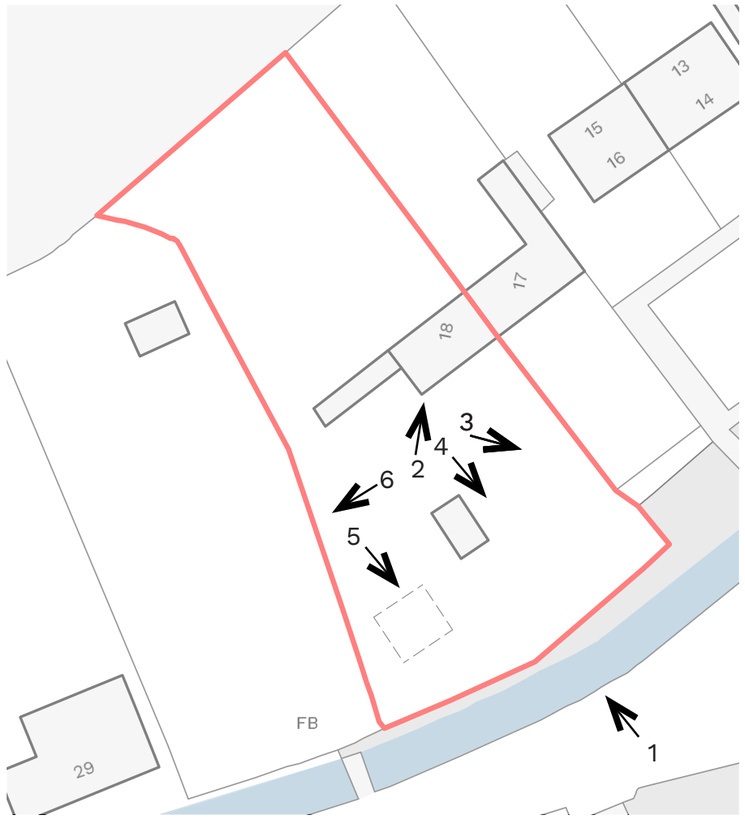
The upgraded drainage will accompany ongoing internal rennovations to ensure that the property is easy to maintain and a safe, pleasant and comfortable place for tenants to enjoy.



Site location plan NTS

1.0 Site Analysis & Key Issues

Existing site photos



Key plan



1. View from Townsend showing front elevation and outbuildings.



2. Front elevation adjoining low quality store.



3. View towards site entrance from 18 Abdon Close.



4. View towards Townsend from the front lawn.



5. Existing sewage treatment plant enclosure (owned by Selwood Housing).



6. Western section of front lawn

Existing site plan
NTS



Previous planning history
Abdon Close drainage applications

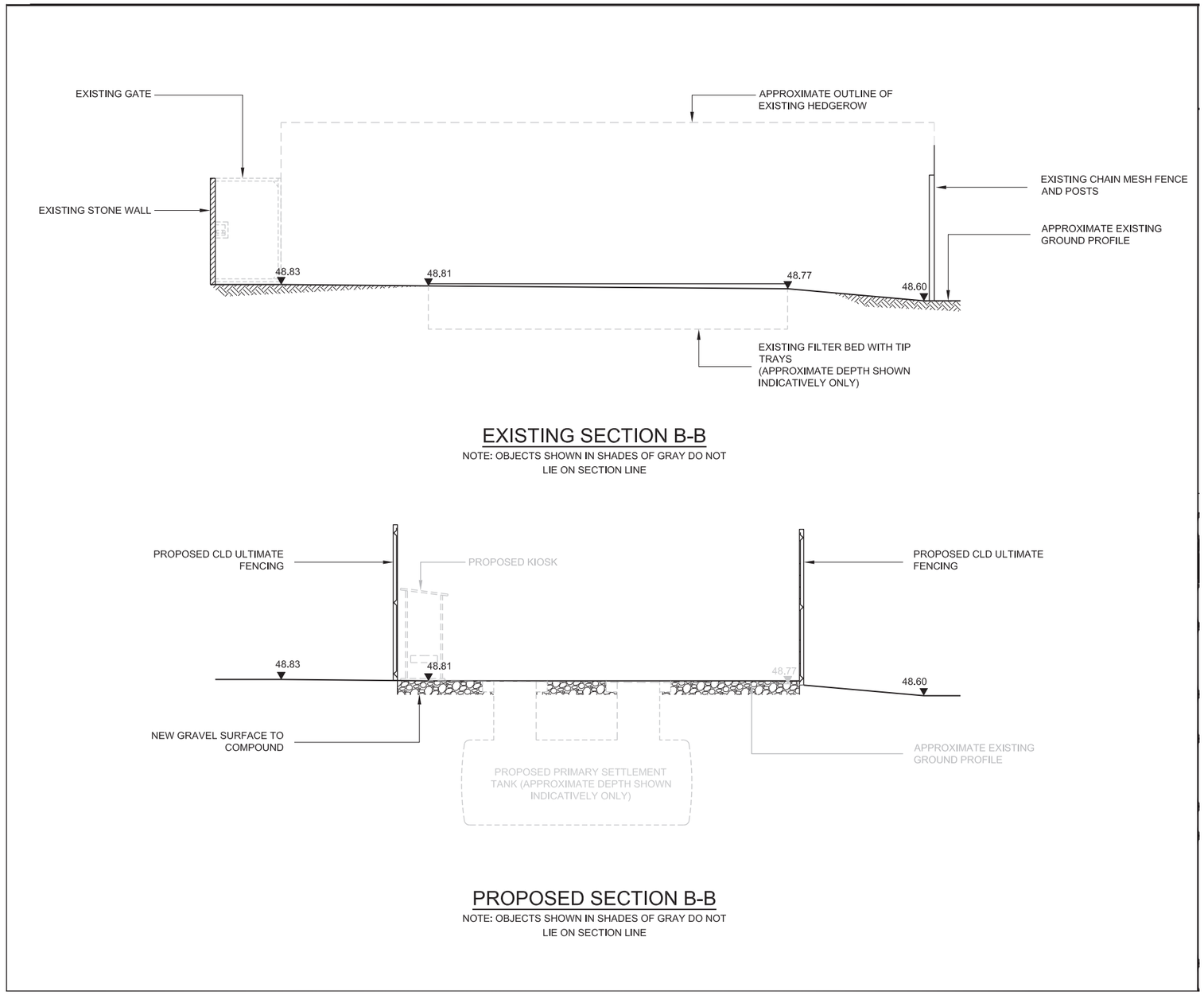
The following previous planning applications relating to the site and the surroundings:

15/10064/FUL - 7-18 Abdon Close sewerage 2015
Replacement of an existing sewage treatment works with a new package treatment works. This incorporates new sewage treatment plants which feed into a percolation bed, and finally discharge into the surface water of the adjacent Chitterne Brook.

17/08857/FUL - 1-6 Abdon Close sewerage 2017
Replacement of an existing sewage treatment works serving 6 properties at Abdon Close with a new package treatment works.

Although this application was granted, it was noted that: *"The Parish Council are however concerned about the potential financial impact of the upgrading on residents in Abdon Close. Residents already pay large sums for sewage services."*

At present there is a significant yearly fee which is being charged to the property owner for maintenance and management. The owner would prefer to manage the maintenance themselves.



Extract drawing from previous planning application.

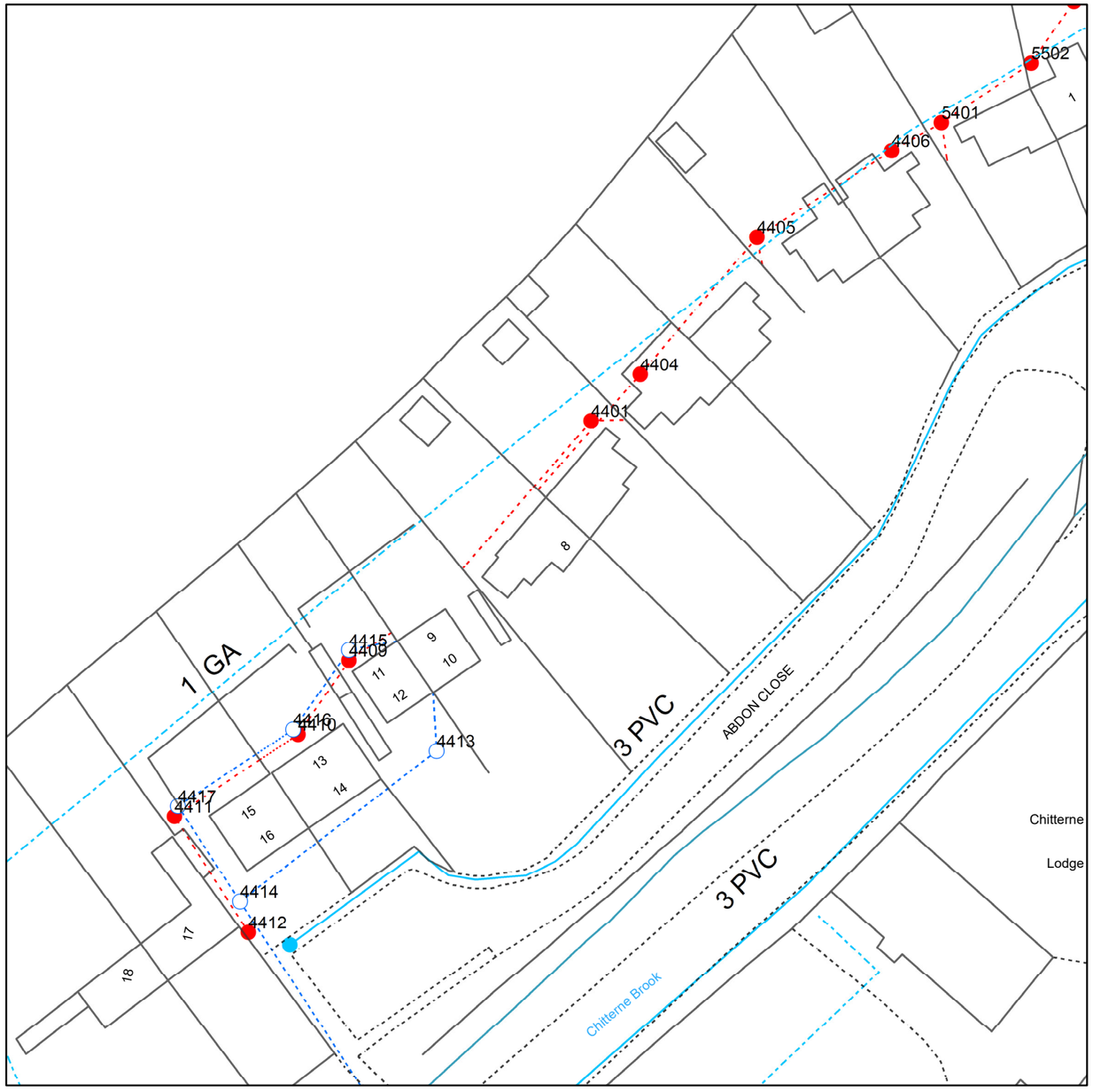
Wessex Water asset map
Known existing drainage and mains supplies in the area

The map opposite shows that the site is served by mains water, but that there is no public sewer in the area.

This aligns with the findings of the previous planning reports that the area does not benefit from mains sewerage.

As the site is more than 30m away from a mains sewer connection, the use of off-mains sewerage is deemed necessary.





Reproduced from the Ordnance Survey map by permission on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright . Licence 100019539.

Wessex water asset map

Conservation Area
Heritage status

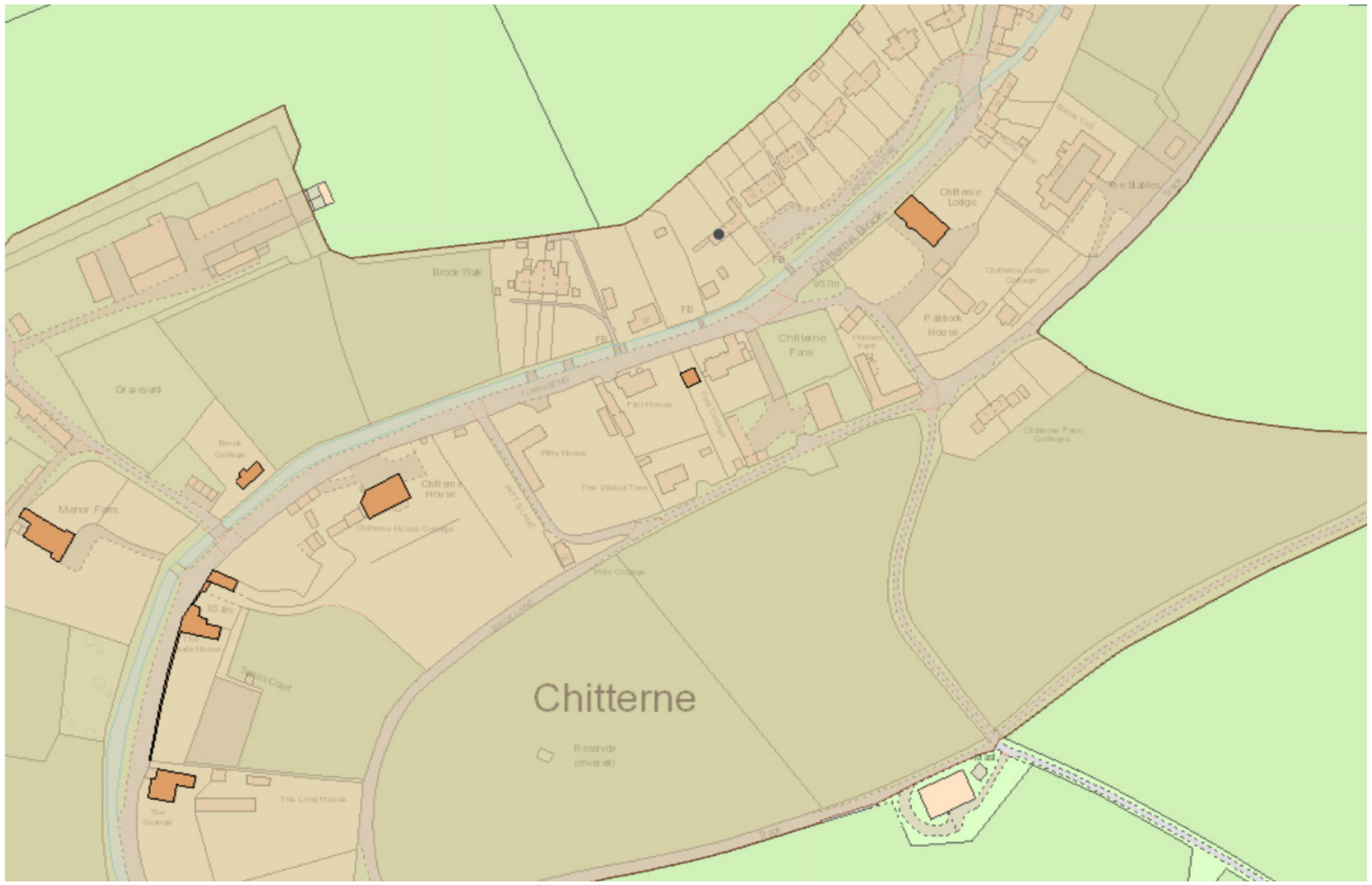
The site is in the Chitterne Conservation Area.

Excerpt from previous planning application for new off mains sewage in Abdon Close:

“Impact on the conservation area: Section 72 of the Planning (Listed Buildings and Conservation Areas) Act 1990 states that in the exercise of any functions, with respect to any buildings or other land in a conservation area, under or by virtue of any of the provisions mentioned in this Section, special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.

This section of Chitterne’s conservation area is tightly drawn to the urban boundary of the dwellings within the village bar a few sections of open countryside. The southern and eastern side of Townsend (the road through the village) comprises of the older and historic dwellings which are built close together and right on the road edge. Abdon Close however, is a much younger and being ex local authority are set far back from the road and are large houses within large plots and has a completely different character to the dwellings on the other side of the road. In any regard the existing treatment plant is not readily noticeable or scene from the street and with the existing hedge to remain, will continue to screen any view of the fence enclosure.

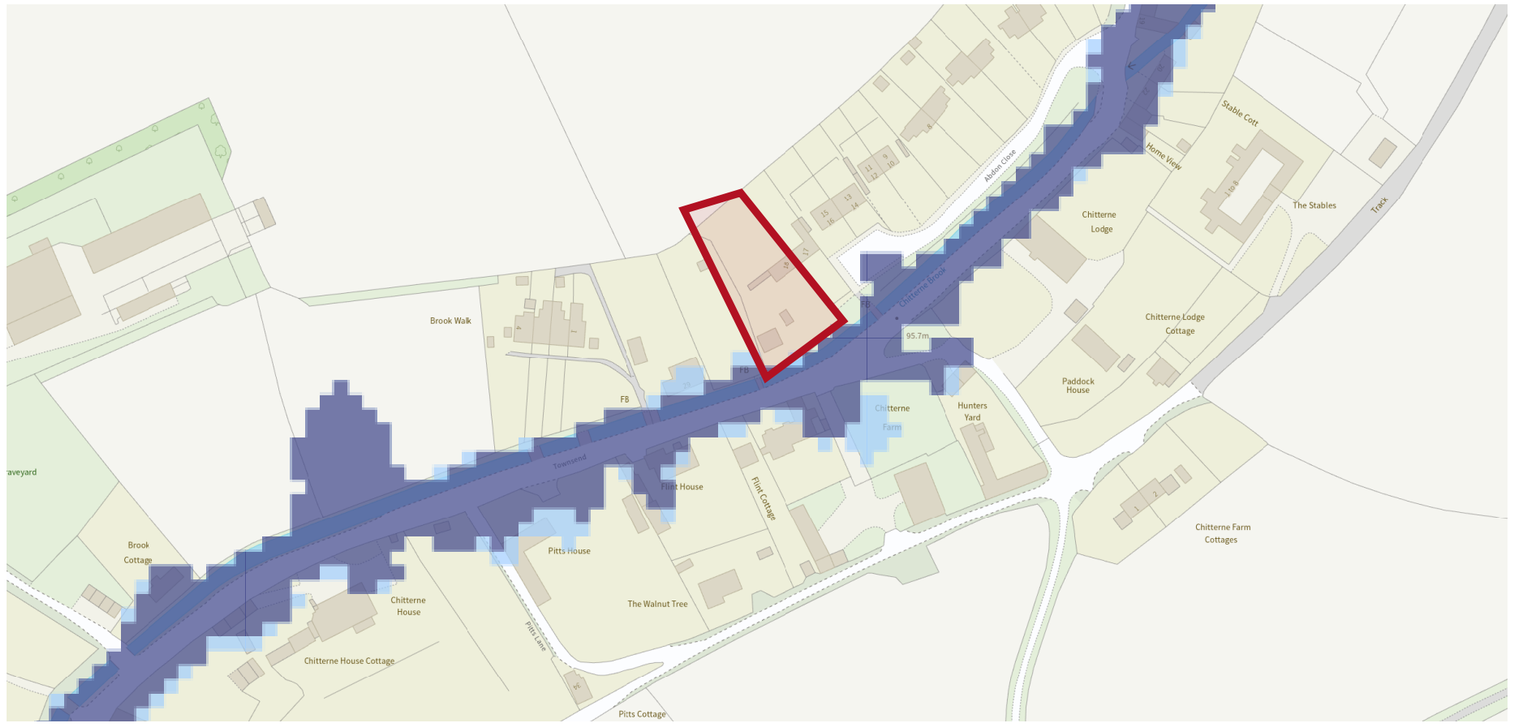
Therefore it is considered that the character and appearance of the conservation area will be persevered and no harm would be caused to the significance of the conservation area (as required by paragraphs 133 and 134 of the NPPF).”



Conservation area map

Flood risk and Groundwater Source Protection Zones
Ecological Zones

Flood Risk Zoning
The site is not located within a flood risk zone.

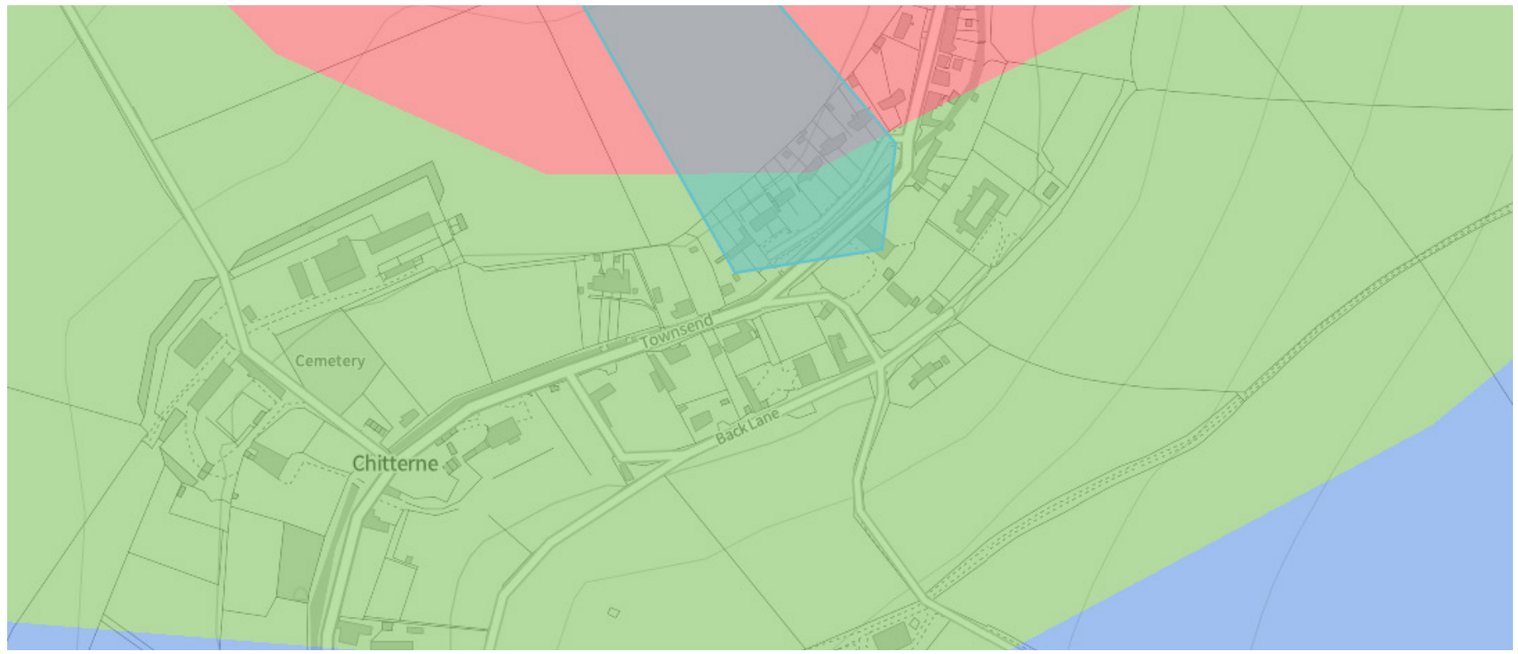


Flood risk map

Groundwater SPZ II
The site is located in a Special Protection Zone for groundwater and a Nitrate vulnerable zone. This means that avoiding pollutants is key.

It is close to an SSSI nature site and as such waste effuents must be kept to less than 20m3.

The site is not located in a Groundwater SPZ I zone.
The front garden of the property is not located within 50m of a SPZ I zone.

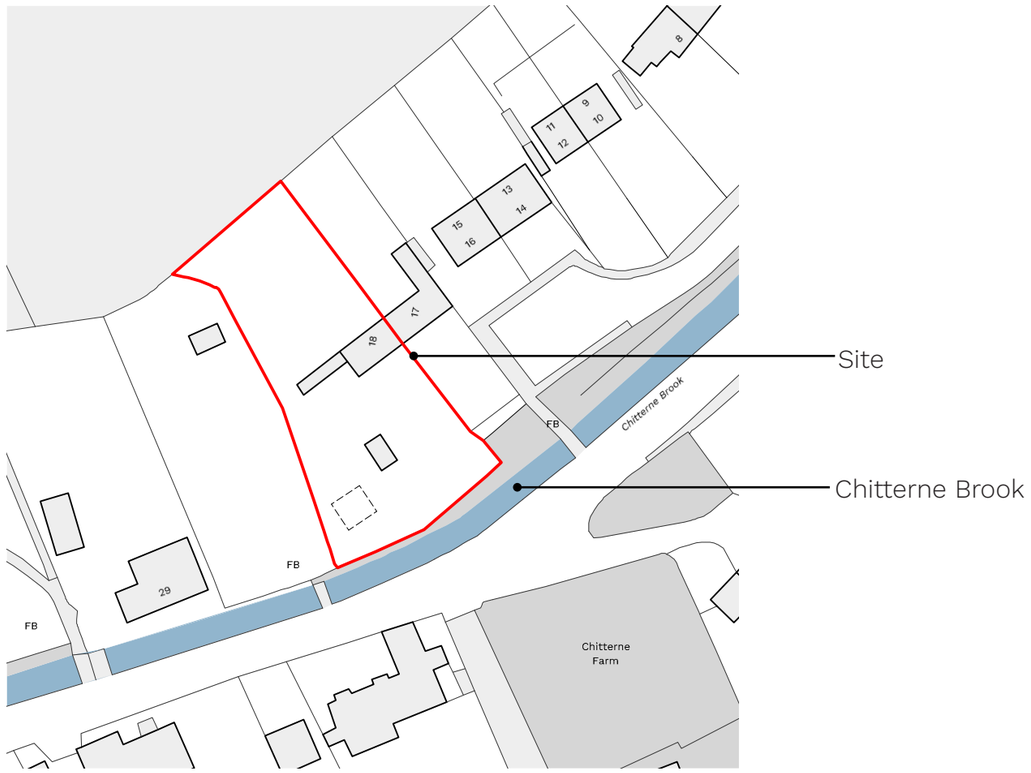


Groundwater zones map

Chitterne Brook
A winterbourne stream which borders the site

The site is bordered by Chitterne Brook a winterbourne chalk stream which dries up in summer and is home to a host of local ecology. The Brook joins the River Wylye downstream.

At present foul waste from the site is discharged into this stream, however the tendency for it to dry up makes this less than ideal, especially as dry spells increase with climate change bringing hotter, dryer summers.



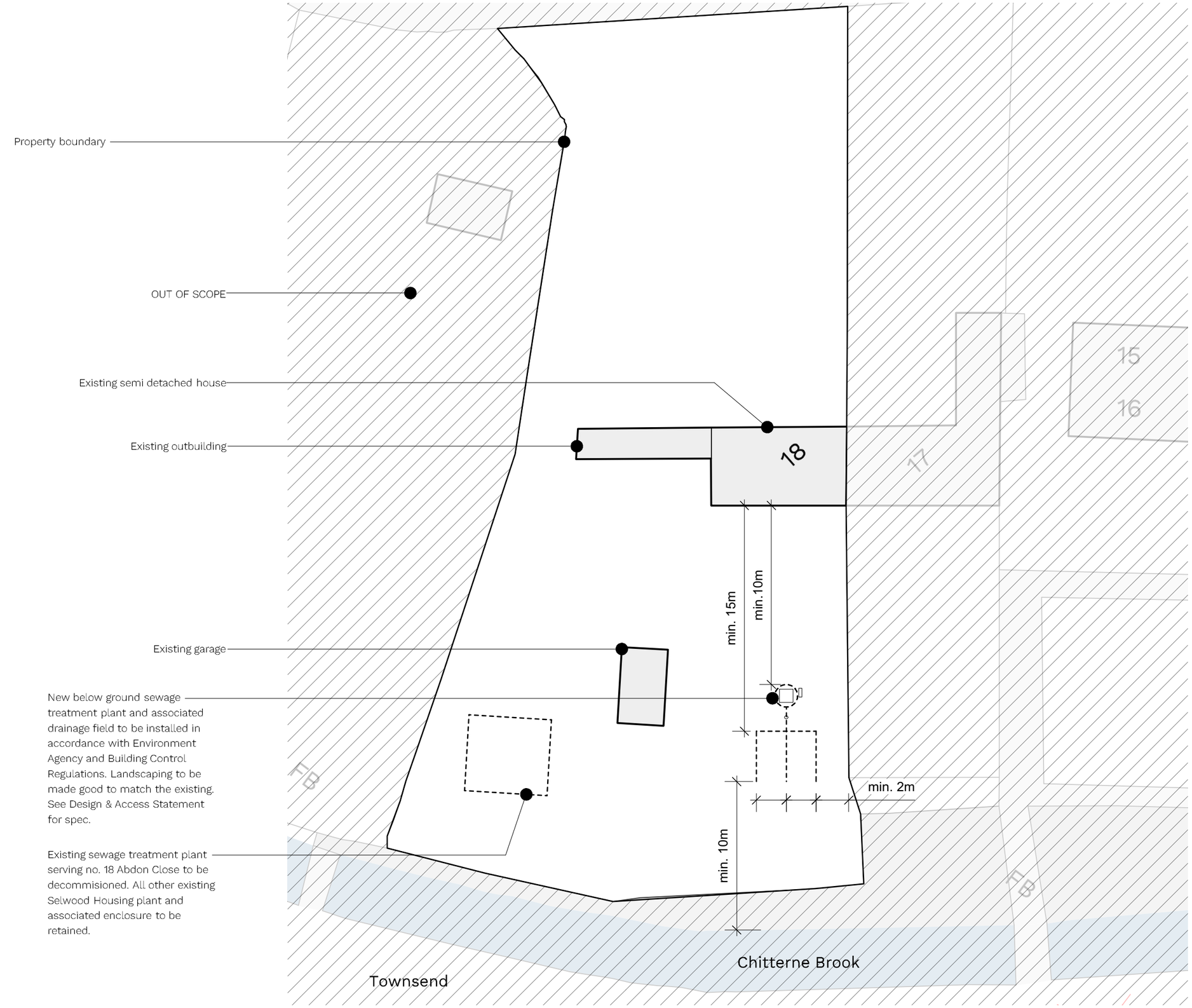
Block plan



Photo of Chitterne Brook further downstream

2.0 Proposal

Proposed site plan
NTS



Proposal
View from Townsend

Existing plant enclosure to remain. Sewage Treatment plant serving no. 18 Abdon Close to be decommisioned.

New below ground sewage treatment plant and associated drainage field to be installed to the front of the property. This will treat the waste water to a higher standard than current and be concealed by the front hedging, which is to be retained.



Sewage treatment plant spec
Clenviro CLF1 (6pe)

As Chitterne Brook is a winterbourne stream which dries up in summer, it is proposed that the system discharges to groundwater via an infiltration drainage field instead of surface water. This will produce an effluent which is within Environment Agency guidelines and is to be sized according to the British Water Code of Practice for Flows and Loads guide.

Model
CLF1 (6pe) Sewage Treatment System.

Effluent quality
The MATRIX treatment system is a three stage biological process contained within a single tank structure, based on the principles of a submerged bed reactor and designed in accordance with the requirements of BS6297.

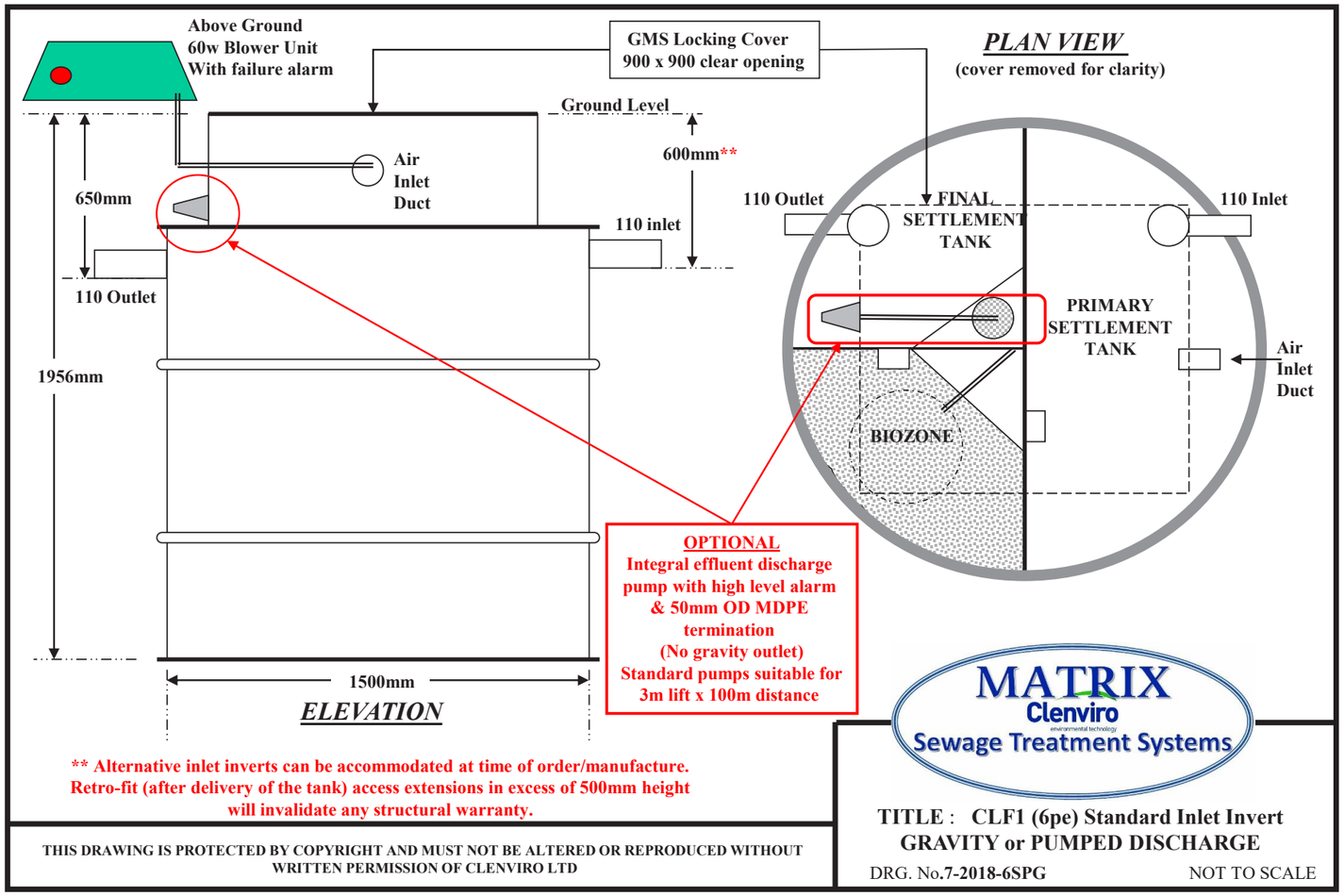
The MATRIX sewage treatment system is designed to achieve the minimum required effluent quality standard of 20mg/litre Biochemical Oxygen Demand (BOD) : 30mg/litre Suspended Solids (SS) : 20mg/litre Ammoniacal Nitrogen (NH4), which in European Standard performance testing relates to an efficiency of better than 94%. The certified performance of the MATRIX system is that it produces an average final effluent quality of 11mg/litre Biochemical Oxygen Demand (BOD) : 16mg/litre Suspended Solids (SS) and 7mg/litre Ammoniacal Nitrogen. Average efficiency ratio: 96.2%.

The unit will discharge less than 2m3 of domestic waste effluent.

Building regulations
The Matrix system meets BS:EN12566-3 and is equipped with a failure alarm as standard.
The drainage field will meet BS: EN BS 6297: 2007.

Servicing and maintenance
There are NO electrical or mechanical components within the treatment plant thereby eliminating the need for any specialist servicing arrangements. This is well suited to a tenanted property.

The owner will arrange for the tank will to be emptied as required, at least annually, by a license waste disposal contractor, as per the general binding rules.



Manufacturer’s technical drawings

3.0 Evaluation of Proposal

Evaluation

An environmentally and cost friendly solution managed by the property owner

The provision for a new sewage treatment plant will allow the property owner to ensure that their waste is being disposed of in compliance with the guidelines of the Environment Agency and will allow them to ensure that the plant is well maintained.

This will ensure effluent is not discharged into the winterbourne stream adjacent to the site - Chitterne Brook - which dries up in summer. This will in turn protect the water quality in the area, benefitting local ecology.

The cost of waste disposal can also be managed by the property owner and they will therefore not be subject to annual fees imposed by others.

View from Townsend

The proposed sewage treatment plant will be installed below ground, with only the outer cover, inspection chamber cover and blower unit visible above ground. These will be at ground level within the soft landscaping in the front garden. This will not be visible from Townsend as it will be concealed by the existing front hedging, which is to be retained.

Effluent discharge

The effluent discharged will have an average efficiency ratio of 96.2% and be far below the 20BOD/30SS/20NH4 target ratios.

Building regulations

The Matrix system meets BS:EN12566-3 and is equipped with a failure alarm as standard.
The drainage field will meet BS: EN BS 6297: 2007.

Building use

The building use will be unchanged.

Massing

The massing of the main dwelling will be unaffected by the proposal and no additional massing is proposed.

Neighbourly matters

The proposal will benefit neighbouring properties by improving effuent disposal quality.

Noise

The sewage treatment plant and construction works will not cause excessive noise to the neighbouring properties.

Conclusion

It is the client's intention to provide a safe, welcoming and confortable home to future tenants which let the dwelling.

The provision for upgraded drainage will facilitate them in providing this and will accompany the internal rennovation works which are already ongoing.

Thank you

If you have any queries, please contact:

Chloe Fenton-Williams

[redacted]