

Area 1 – Barrington Street, St Hilda’s Square and King Street

Surface Water Drainage

The Environment Agency (EA) online flood map is based upon the latest flood modelling data and shows the site to be located wholly within Flood Zone 1 ‘Low Probability’. This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%). (Refer to appendix C for EA flood map)

A 525mm diameter interceptor sewer is shown located in Barrington Road and Cornwall Street flows in a westerly direction which then discharges into a pumping station in Coronation Street, to the south west of the site. The interceptor sewer is approximately 6 to 7 metres in depth.

There are numerous 225mm diameter public combined sewers crossing the site at varying depths which all flow in a southerly direction towards Coronation Street. A 975mm diameter public combined sewer is shown located in Coronation Street to the south of the site.

The proposed surface water drainage scheme should seek to meet the requirements of the current Building Regulations Part H and follow the selection hierarchy. Consideration should be given firstly to infiltration techniques (to ground), to watercourse and then to sewer.

A Desktop Study report has been undertaken by 3e Consulting Engineers. This report states that the anticipated ground conditions could be made ground overlying glacial till (Boulder Clay) drift deposits. Based on these anticipated ground conditions the use of infiltration techniques for the disposal of surface water will not be feasible.

The River Tyne lies 280m west of the Area 1 development site and as such will not be feasible to be used for the disposal of surface water from Area 1.

It is therefore proposed to connect surface water drainage into the existing public combined sewer either by utilising existing connections or connecting into Northumbrian Water manholes within/adjacent to the site. Flows from the site will be restricted to a discharge rate to be agreed with Northumbrian Water with attenuation provided within the site.



manholes adjacent to the site. Flows from the site will be restricted to a discharge rate to be agreed with Northumbrian Water with attenuation provided within the site.

Foul Water Drainage

Foul Water, if any, will discharge to the existing public combined sewers adjacent to the site.

Area 3 – Fowler Street West

Surface Water Drainage

The Environment Agency (EA) online flood map is based upon the latest flood modelling data and shows the site to be located wholly within Flood Zone 1 'Low Probability'. This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%). (Refer to appendix C for EA flood map)

Numerous public combined sewers are shown to be located within the site. These are shown to flow in a northerly direction through the site where they discharge into a 825mm diameter public combined sewer in Keppel Street to the north west of the site.

A 450mm diameter public combined sewer is shown located in Fowler Street to the east. This drains in a northerly direction where it discharges into the public combined sewer in Keppel Street to the North.

The proposed surface water drainage scheme should seek to meet the requirements of the current Building Regulations Part H and follow the selection hierarchy. Consideration should be given firstly to infiltration techniques (to ground), to watercourse and then to sewer.

A Desktop Study report has been undertaken by 3e Consulting Engineers. This report states that the anticipated ground conditions are likely to be made ground overlying Glacial sands and gravel deposits across the southern area with laminated clays to the north. Based on these anticipated ground conditions the use of infiltration techniques for the disposal of surface water will not be feasible.



The River Tyne lies 480m west of the Area 3 development site and as such will not be feasible to be used for the disposal of surface water from Area 3.

It is therefore proposed to connect surface water drainage into the existing public combined sewer either by utilising existing connections or connecting into Northumbrian Water manholes within/adjacent to the site. Flows from the site will be restricted to a discharge rate to be agreed with Northumbrian Water with attenuation provided within the site.

Foul Water Drainage

Foul Water will discharge to the existing public combined sewers within/adjacent to the site.

The combined sewers will be diverted/abandoned during the redevelopment of the scheme following further discussion/agreement with Northumbrian Water.