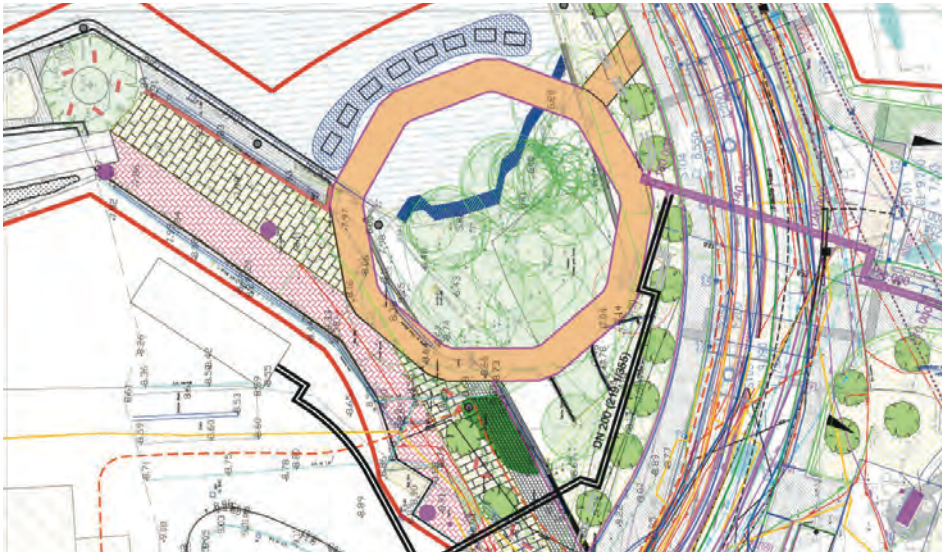


# BRISTOL CITY COUNCIL

Bristol's status as 2015 European Green Capital involves becoming the UK's most energy efficient major city. Plans to transform Bristol into a carbon-neutral city by 2050 have led to the approval of a new low-carbon district heating network.



CLIENT: BRISTOL CITY COUNCIL

CONTRACT VALUE: £750K



## A CITY-WIDE HEAT NETWORK DESIGN AND INSTALLATION PROJECT

The network will be built in phases, eventually feeding heat to all parts of the city through a network of underground pipes connected to a number of energy centres, including biomass boilers and gas combined heat and powerplants.

Eneteq Services Ltd was appointed as principle consultant for the citywide district heating network design and commercialisation project which started in February 2015. The project included several significant design challenges especially associated with network crossings over the river Avon and under Bristol Temple Meads Station. The network is also required to be developed in fragmented stages as other utility works are undertaken across the city. Eneteq scope included working internally within Bristol City Council coordinating all key internal and external stakeholders to drive the programme forward.

## KEY PROJECT INFORMATION

Headline scope included heat network HNDU feasibility study, input into the financial model to ensure HNDU compliance, HNDU funding applications, heat mapping, network diversity modelling, pipe sizing, pipe 3d modelling and routing, utility coordination, civils trench and chamber detailing, thermal expansion, heat loss calculations, bracketry design and structural coordination with bridge manufacturer for bridge section, ground radar surveys, fabrication drawings and pipe supply, install and commissioning to the bridge and cattle market road sections of the city.



THE DISTRICT HEATING NETWORK SPECIALISTS

## PROJECT OUTPUTS

### Scoping

Kick off meeting and review of existing Energy Strategy:

- data
- anchor loads
- core building connections
- demand data
- gap analysis

### Concept Design & Option Assessment

- Energy demand assessment and building connection reviews
- Heat mapping
- Building connection assessment
- Energy centre technology assessment
- High level assessment of feasible heat supply sources and storage options
- Identified opportunities in grant funding and cost savings
- Assessment of network requirements
- Assessment of scheme CO2 emissions

### Outline Design & Economic Assessment

- Commercial assessment
- Capital and operational cost assessment

### Business Case Assessment

- Technical & commercial options appraisal
- Assessment of the wider benefits of the project for the business case
- HNDU funding application

### Detailed Design

- Heat network routing
- Bridge bracketry design
- Heat loss and expansion calculations
- Service coordination and 3d modelling
- Co-ordination with multiple internal and external stakeholders

### Business Plan

- Preparation of business plan for preferred option

### Installation

- Pipe supply
- Installation and commissioning using trained certified operatives
- Civils excavation, chambers and reinstatement



For more information relating to this project or to discuss your own district heating network engineering requirements, please call **01327 770170** or email **enquiries@eneteq.co.uk**



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