

Client: FES Group
Value: £2.4 million
Location: Renfrewshire
Completion: 2023



District heating network

Advanced Manufacturing Innovation District
Scotland (AMIDS)



The UK's first district heating system to support a mixed-use development

District heating networks – systems of insulated pipes that distribute thermal energy from a central source to multiple buildings – could play an integral role in meeting the UK's net zero carbon emissions by 2050.

United Infrastructure built the 1.9km pipeline loop of a new industry-leading district heating system in Scotland.

The system, at the Advanced Manufacturing Innovation District Scotland (AMIDS), produces 90% less carbon emissions than traditional gas boilers, and provides heating and hot water to the major manufacturers and research centres based at AMIDS.

Innovative low carbon network

The delivery of a low-carbon district heating network is considered a vital element of the AMIDS site, with a vision to become internationally recognised for advanced manufacturing, leading innovation and research.

The network converts treated water into low-temperature heat, which is then boosted using low-carbon technology to provide heating and hot water to facilities at AMIDS.

Amongst the organisations connected to the network are two new world-class innovation centres The National Manufacturing Institute Scotland (NMIS) and the Medicines Manufacturing Innovation Centre which opened in 2023, creating thousands of new jobs.

The district heating network at AMIDS is unique because it is:

- The first 5th generation renewable energy heat network in Scotland.
- The first in the UK supplying a mixed-use development.
- The first ambient (low temperature) loop in the UK connecting to a wastewater treatment works, a sustainable system supporting the circular economy.



Applying our expert knowledge

A key challenge of our work on the bridge section of the pipeline was the proximity to Air Sea Scotland's depot, which manages all the freight in and out of Glasgow Airport.

Weather conditions in the winter of 2021 - 22 made for challenging ground conditions working at depth beside the White Cart river. As a business we have vast experience managing trenching systems in challenging conditions, and appropriate dig and pump techniques to ensure the project stayed on track.

We coordinated our programme and worked closely with Air Sea Scotland to understand access and logistics requirements so that they could continue operating their warehouse.

The pipeline crossed five live building sites, forming part of the Glasgow Airport Investment Area project, which required close liaison to coordinate our programme and access with the other building contractors overseeing these projects and the local authority.

We developed carefully programmed supply chain and logistics plans to ensure we could time our deliveries to suit adjacent construction projects – often sharing access routes with other construction traffic.

We also carefully considered the pipeline valves and termination loop ends design so that the system can be adapted over time to meet the changing needs of heating users at AMIDS.

Delivered safely, on-time and budget

This ground-breaking project was delivered safely, on time and budget.

It will not only provide a cost-effective, green option for the businesses it serves, but it will also demonstrate the potential of the technology for others to follow suit and support Renfrewshire Council's plans to be carbon neutral by 2030.



Together we achieve more



For further information on how
United Infrastructure can help please contact:

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