

**JV TIERNEY & CO**

MECHANICAL ELECTRICAL & SUSTAINABLE ENGINEERS



## Item 17 – HeatNet

UNIT 21, FIRST AVENUE, COOKSTOWN INDUSTRIAL  
ESTATE, DUBLIN 24

# JV TIERNEY & CO

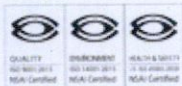
MECHANICAL ELECTRICAL & SUSTAINABLE ENGINEERS

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**UNIT 21, FIRST AVENUE, COOKSTOWN INDUSTRIAL ESTATE, DUBLIN 24**

**Item 17 – HeatNet Response**

Rev:	Issue Date:	Prepared By:	Checked By:
01	27/01/2023	RD	MD



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Contents

1. Item 17 – HeatNet Response..... 4

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## 1. Item 17 – HeatNet Response

SDCC requested ‘to investigate the proposal to connect into HeatNet, and provide details on futureproofing the development so that it can easily revert to conventional heating in the event HeatNet is no longer available in the future’.

The HeatNet project is the development of District heating (DH) within South Dublin County Council’s district that utilises waste heat from sources such as industry or electricity generation to deliver heat through a network of insulated pipes to typically provide space heating and hot water to residential and commercial buildings. This is far more sustainable and economically friendly than traditional methods of heating which utilize individual gas or oil boilers.

As depicted in Figure 1, waste heat generated by industry is transported via underground insulated pipes to buildings where the heat is passed through a heat exchanger so that this heat can be utilised for space and/ or water heating.

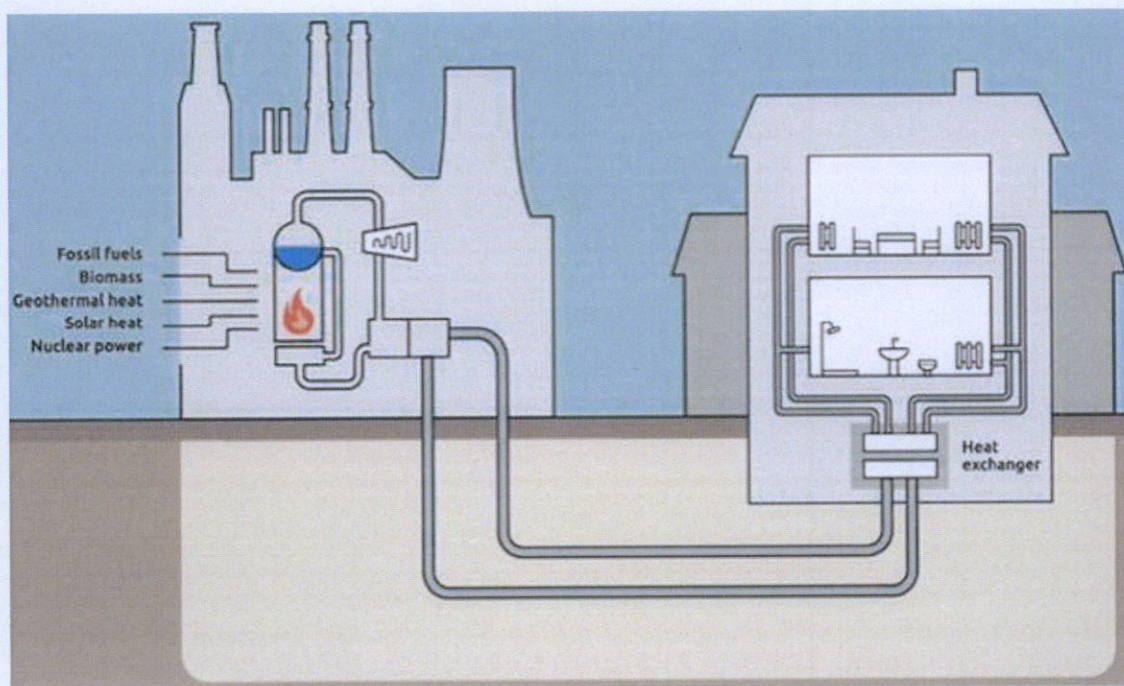
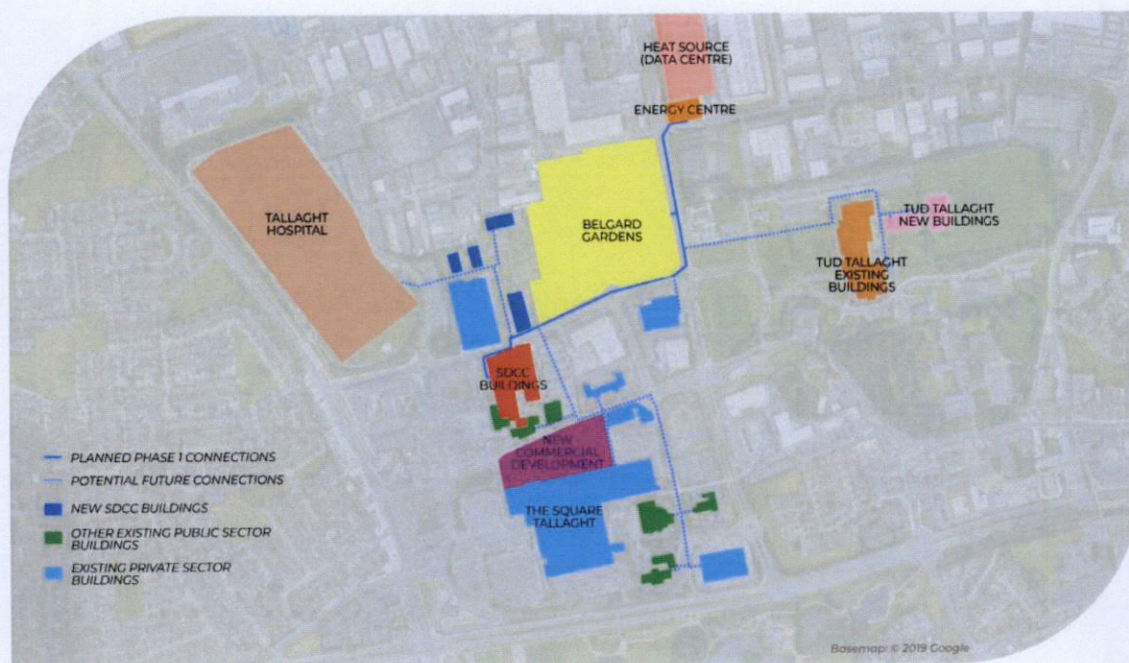


Figure 1 Typical District Heating operation (<https://www.atamate.com/atamate-blog/can-district-heating-make-housing-more-efficient>)

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As per the current phase 1 plans seen in Figure 2, the district heating network is not planned to extent as far north as this development's proposed location. Thus, the Transitional Care Facility (TCF) will be provided with high efficiency heating plant including a centralized plant space adaptable for future connection to the proposed District Heating Scheme in Cookstown.



Potential Pipe Route Map

Figure 2 Phase 1 District Heating Plans (<https://www.sdcc.ie/en/devplan2022/stage-2-draft-plan/consolidated-draft-county-development-plan/1-draft-south-dublin-county-development-plan-2022-2028.pdf>)

This design aligns 'South Dublin 2022 – 2028 County Development Plan' that indicates that where a District Heating scheme has not been confirmed, new developments should be designed so that it can connect into such a scheme when one is delivered. Furthermore, this design proposal is in line with policy E6 of SDCC's 'South Dublin 2022 – 2028 County Development Plan' as seen in Figure 3 below, which outlines the need for futureproofing the development to allow for future connection to the district heating network.

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**Policy E6: Waste Heat Recovery and Utilisation**

Promote the development of waste heat technologies and the utilisation and sharing of waste heat in areas where feasibility is proven for its use in the delivery of low carbon district heating technology.

**E6 Objective 1:**  
To require future proofing of and promote the development of waste heat technologies and the utilisation and sharing of waste heat where feasibility is proven for its re-use as part of a low carbon district heating network.

**E6 Objective 2:**  
To promote the circular economy by generating energy through waste subject to environmental considerations.

Figure 3 Policy E6, South Dublin County Development Plan 2022 – 2028

If in future the TCF was to integrate into the district heating network, the centralised heating system would be retired and removed, a heat exchanger would then occupy this plant space instead. In the event of the district heating system ceasing to exist, the heat exchanger can be removed and a standalone heating system can be put in place. Please see figure 4 below which indicates the space allowed for a heatnet heat exchanger if this project was ever to be integrated into heatnet.

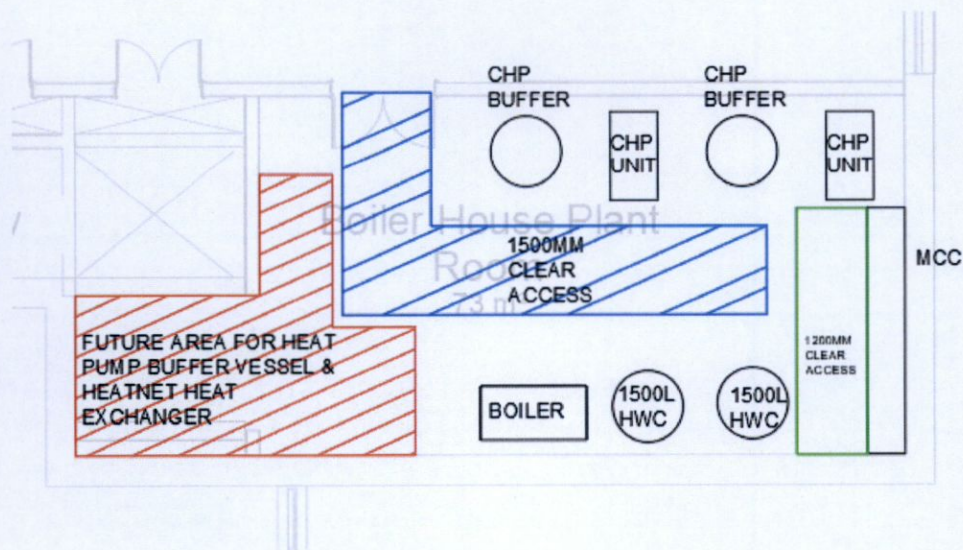
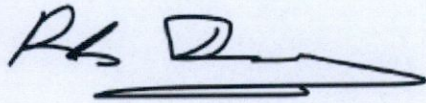


Figure 4 Transitional Car Facility Plant Space

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This Report was prepared by Robert Donnelly.

Signed:



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Robert Donnelly, Project Engineer

J.V. Tierney & Co.

Date: 26/01/2023