

All 12 properties in Phase 1 were completed in 2018 and Phases 2 and 3 were completed in 2020. Phase 2 included external works only and Phase 3, like Phase 1, involved full refurbishment of seven homes. Works included new gas central heating, kitchens, and bathroom suites along with completely re-wired electrics and a full skim of plaster and painting throughout.

Phase 4 of the council's ongoing refurbishment programme now includes a further 7 properties which will undergo a deep retrofit which looks at the properties overall energy efficiency and uses a combination of measures to improve it, together with remodelling and refurbishment as completed in phase 1 and 3.

Work completed through Phase 4 will therefore enhance the energy efficiency of our existing stock and provide an important pilot for the roll-out of more energy-efficient homes across the borough.

The concept for phase 4 and a preliminary budget of £981,000 was approved at full Council in February 2022. Following detailed tender development in the interim, the budget required for these works now totals £1,765,000. There is therefore a budget shortfall of £784,000. However, Candice Keet) our Senior Housing Accountant has advised that the Major Repairs Reserve has sufficient balances to cover this additional spend, with a balance of £1.7m. The Major Repairs Reserve is used to fund capital spend on our current dwelling stock and is monitored regularly to ensure balances are sufficient.

### Consultation and engagement

Thank you to the Resources Overview and Scrutiny Committee for reviewing this Ockford Ridge Refurbishment Phase 4 Deep Retrofit – Green Technology Pilot report on 20 February 2023 and is in favour, making the following recommendations to the Executive:

<p>In relation to the data regarding the energy performance of the homes, the Committee wishes to ensure the Council's entitlement to the performance data which may necessitate an agreement be entered into with the tenant. Also, that our tenants will be supported in understanding how to make optimal use of the equipment, undertake maintenance required and otherwise engage with us to ensure we get maximum value for both tenants and the Council.</p>	<p>Agreed and already stated in the report</p> <p>Necessary agreements will be put in place with our tenants to facilitate the ability for the council to collect and analyse the performance data from the occupied property and tenants will be provided with support to ensure that they understand how the equipment in their newly refurbished home operates and how to maintain its optimal performance.</p>
<p>The title of the project is changed to make clear that the majority of the cost (70%) relates to a high-quality refurbishment project with retrofit of green technology as the minority cost (30%).</p>	<p>The focus on differentiating between the 'refurbishment' and the 'green technology' is somewhat pedantic and does not recognise the 'fabric first, energy retention' approach as being 'green technology' as well as the energy-creating technology (heat pumps/PV panels).</p>

	<p>However, the Executive note this recommendation and although they are content with the wording of the title of this report are happy to change the title to</p> <p>Ockford Ridge Refurbishment Phase 4 Deep Retrofit – including Green Technology Pilot</p>
<p>All opportunities for grants be sought on the basis that this is a learning opportunity, and opportunities for shared learning should also be explored.</p>	<p>Agreed - and already stated in the report. Officers will use the pilot and lessons learned to inform future programmes and assist when bidding for future funding programmes.</p> <p>Officers will continue to seek opportunities for grant funding and have recently submitted a bid for funding which supports focus on delivering net zero activities relating to heat, power, mobility, or manufacturing, identifying, and addressing human, process and non-technical barriers, and demonstrating the impact of these alternative approaches can make through application in new projects.</p>
<p>An indication of expected annual CO<sub>2</sub> savings (i.e., current CO<sub>2</sub> output from equivalent dwellings minus expected CO<sub>2</sub> output from the refurbished dwelling (recognising the CO<sub>2</sub> footprint of grid electricity used to power the heat pump)) should be included as well as the expected payback period in years (i.e. the CO<sub>2</sub> emitted in the refurbishment exercise divided by the expected annual CO<sub>2</sub> savings).</p>	<p>Agreed</p> <p>Our sustainable building services consultants have calculated the carbon emission savings per year by comparing the existing kg/m<sup>2</sup>/year for the existing homes and as a result of the proposed work.</p> <p>Based on these initial assessments and across the range of property types the CO<sub>2</sub> savings of kg/m<sup>2</sup>/year is between 50.96 and 58.7 or a reduction of carbon emissions per year between 3368 to 6411 kg CO<sub>2</sub>.</p> <p>In terms of calculation of expected payback period in years, this will require further information so of which is currently unknown. For example, confirmation of the embodied carbon within the products specified and capture of direct and indirect carbon emissions through delivery of the project.</p>

<p>Greater clarity is needed regarding how much of the cost is for the refurbishment (as opposed to the new technology) and how these refurbishment costs compare with previous refurbishment phases 1 and 3.</p>	<p>Phase 3, like Phase 1, involved full refurbishment and some reconfiguration of seven homes. Works included new gas boiler and central heating, kitchens and bathroom suites along with window replacement as required, completely re-wired electrics, new ceilings and wall finish (as stripped back to brick and chimneys removed), and painting throughout. This did not give full consideration to the overall energy efficiency of the homes as the proposed deep retrofit does. Work completed through Phase 4 will therefore enhance the energy efficiency of our existing stock and provide an important pilot for the roll-out of more energy-efficient homes across the borough.</p> <p><i>Phase 1 – £649k (12 homes completed 2018)</i>  <i>Phase 3 - £727k (7 homes completed 2020)</i></p> <p><i>Renewable technology e.g. PV/Waste water heat recovery/ASHP including pre-lims and O/H&amp;P</i>  <i>% Total scheme budget 11.1%</i></p> <p><i>Fabric – insulation (floor and wall) including pre-lims and O/H&amp;P</i>  <i>% Total scheme budget 9.1%</i></p> <p><i>Renewable and fabric</i>  <i>%Total scheme budget 20.2%</i></p>
<p>In addition, the Committee expressed its concern that only two tender responses were received, of which only one was considered suitable, which casts doubt on the ability to find contractors to scale up this project should funds be available to do so.</p>	<p>As set out in the tender report, two fixed price tender returns were received both were valid and considered suitable however following the detailed tender submission analysis and evaluation one contractor was recommended as the preferred contractor due to their comparatively high standard in terms of quality and technical ability.</p> <p>The Most Economically Advantageous Tender criteria was used to enable the Council to take account of the qualitative, technical and sustainability aspects of the tender submission as well as price when reaching an award decision.</p>

The tender evaluations were undertaken on the basis of 50% quality and 50% price.

Six qualitative and technical questions used related to:

- How **quality control** procedures are operated and monitored from pre-construction to completion including snagging and pro-active management
- Provision of information about **project resources and programme**, for example an organisational chart and curriculum vitae of the key personnel employed to deliver the project and critical path and how works are delivered on-time and risk in terms of supply and how this could affect the programme and assessment and mitigation of risk
- Management and control of the **design process** with specific reference to the pre-construction phase to ensure the finalisation of the designs does not adversely impact on the project delivery.
- **Previous experience** – provision of three recent examples of ‘deep’ retrofit projects related to social housing (Passivhaus retrofit or Enerphit equivalent scheme)
- **Design and employers requirements** = Demonstration of areas of innovation the firm has developed an expertise and experience in.
- **Carbon neutrality** – demonstration/explanation of how the company would minimise their carbon impact when delivering the project, including management of their supply chain from pre-construction to post completion.

To ensure that the tenderers responses were given equal consideration, the evaluation of the quality and technical questions were measured using a series of comprehensive descriptors. This approach ensured, as far as possible, there was less reliance on subjectivity on behalf of the evaluators.