

SWT Tenants' Strategic Group – 20 July 2020

Zero Carbon Affordable Homes Pilot

1 Executive Summary / Purpose of the Report

- 1.1 In 2019, the Council declared a climate emergency and committed to working towards achieving carbon neutrality and climate resilience by 2030. As a result SWT is developing policies and delivering actions to reduce the pace of climate change. In 2020 the Council agreed a Housing Revenue Account (HRA) 30 year Business Plan. This plan included an ambition to develop 1000 new affordable homes for the HRA over 30 years. These ambitions have been joined in this proposed pilot scheme to build up to fifty (50) zero carbon council homes and create a blueprint for future affordable housing developments in the District.

2 Recommendations

- 2.1 The Executive Committee makes the following recommendations to Full Council:

- (a) Approve the development of up to fifty (50) Zero Carbon Affordable Homes.
- (b) Allocate a Zero Carbon Affordable Homes Capital budget of £10.8m to deliver up to fifty (50) new homes which will include Right to Buy Receipts on all eligible units plus additional borrowing. This comprises a supplementary capital budget increase of £9.3m and a transfer of £1.5m from the social housing development budget within the existing approved capital programme.
- (c) Support the use of underused SWT garage sites and one temporary housing site for new zero carbon affordable homes.
- (d) Delegate authority to the Housing portfolio Holder and Director of Housing and Communities, in consultation with the Assistant Director – Finance (Section 151 Officer), to sign off the plans for each site.
- (e) Delegate authority to the Housing portfolio Holder and Director of Housing and Section 151 Officer to determine the final funding profile for this scheme once the development plans of each individual site has been finalised to identify which elements qualify for RTB funding.
- (f) Note the use of affordable rents for new build HRA homes in line with the 2020 Rent Setting Policy. The affordable rents will be set to ensure scheme viability at between 60% and 80% of market rent.
- (g) Agrees to suspend investment and letting of garages on the identified sites and support the negotiation of alternative garage accommodation for garage tenants and garage owners, and where required the Director of Housing and Communities negotiate and complete the purchase of privately owned garages.

3 Background and Full details of the Report

- 3.1 The Zero Carbon Affordable Homes pilot aims to build up to fifty (50) low carbon

affordable homes within thirty (30) months.

- 3.2 The pilot will provide the opportunity for learning and a specification to support future SWT low carbon developments and in particular low carbon affordable housing.
- 3.3 Seven (7) sites have been identified for these homes including six (6) garage sites identified through the garage site review. The seventh and largest site is currently used for the provision of temporary accommodation.
- 3.4 The sites are all in SWT ownership although circa 6 garages have been previously sold and require purchase through negotiation with the owners.
- 3.5 The planning process will consider any necessary garage/parking re-provision which may be required due to the loss of garage sites. However many garages are not used for vehicles and some re-provision is possible within alternative SWT garage sites.
- 3.6 The pilot will need to ensure the re-provision of accommodation to compensate for the loss of twelve (12) units of temporary accommodation. This could be achieved through off site lease or purchase arrangements.

The proposed development sites

- 3.7 The garage site review is looking at 146 SWT garage sites. Around twenty (20) sites have been identified to date with development potential. These sites are either underused, require investment and/or are causing blight.
- 3.8 Many of these are small and difficult sites to develop but the pilot provides an opportunity for SWT to retain the assets and reuse land for a new purpose. The garage sites vary in their potential and their site constraints.
- 3.9 Garage site constraints include:
 - being of a small size and less inviting for development contractors
 - trees and buried services
 - more costly to develop as build economies are difficult and more infrastructure and site set up works are required
 - there are privately owned garages within the Council-owned sites
 - sites may be overlooked from neighbouring properties or subject to previously granted access rights restrict land use
 - little or no room for construction site compounds
 - narrow access to the sites
 - many of these sites will not be suitable for traditional building methods
- 3.10 The Council owns land and twelve properties, including eight (8) poor quality prefabricated homes and 4 small one bed units, at Sneddon Grove, Taunton. This site has some site constraints including maturing trees and current service layout. The properties are occupied as temporary accommodation and alternative temporary or permanent accommodation would be required though or outside of the scheme. Recently the Council has increased its supply of temporary accommodation and time is available to manage licences to allow the site to be developed.
- 3.11 Although the seven sites have the potential for circa 60 units it is envisaged the pilot will be constrained to fifty (50) or fewer dwellings or the blend of dwellings may

change due to site constraints.

Building Zero Carbon Affordable Homes

- 3.12 Zero carbon homes are becoming more common and the technology to build low carbon homes using traditional or off site manufacturing techniques is becoming better understood.
- 3.13 SWT has been exploring off-site manufacture able to meet the Council's carbon neutral ambition. The Council is not committed to off-site construction to deliver zero carbon homes however on some sites new methods of construction are better suited. Off-site manufactured homes can be delivered quicker than traditional housing as the site preparation and build process can take place simultaneously.
- 3.14 Officers believe that off-site manufactured units or panellised systems could be better suited to managing some of the garage site complexities and provide an opportunity to deliver more units on sites which have otherwise low development potential.
- 3.15 It is intended to deliver up to fifty (50) affordable homes for rent. The final mix of unit types and sizes will emerge through the ongoing site assessment studies, procurement and planning processes.

Developing a low carbon standard for SWT

- 3.16 Most low carbon exemplar schemes focus on a fabric first (well insulated, air tight homes requiring little energy to heat) and renewable heat and energy often from on-site technology.
- 3.17 These qualities produce great homes for the user and require little energy to heat. The SWT zero carbon affordable homes pilot aims to deliver dwellings which are carbon neutral when occupied.
- 3.18 However, the pilot seeks to go further and develop its knowledge in relation to Net Zero Carbon Homes. Net Zero Carbon Homes are homes which are not only carbon neutral during their occupation but also in their manufacture and disassembly. A Net Zero Carbon Home is therefore a much bigger challenge than a zero carbon home as we need to measure and develop an understanding of the use of carbon in the materials, transportation of materials and labour, construction, maintenance and reuse of components or materials.
- 3.19 With the decarbonisation of the grid on-site renewable energy will reduce in importance in delivering zero and net zero homes and considerations in relation to the materials, transportation of materials and construction processes will increase in importance to climate change.
- 3.20 Understanding carbon capture and energy use in the construction of homes is less well understood and we aim to develop SWTs understanding during the delivery of these homes.
- 3.21 To understand the performance of homes ongoing data collection and analysis is required. One of the aims of the pilot is to incorporate a data collection rigour which will allow the carbon and energy performance be measured and therefore allow the

council to evidence carbon and cost benefits. Ensuring the council is able to evidence carbon and fuel benefits will increase the opportunity for customers and development partners to support and adopt a higher standard.

- 3.22 The pilot will contract an energy advisor to develop our capacity to measure carbon and energy and a longer term project, ideally with local colleges linked to a university, will be run to help collect and analyse data to evidence low carbon living benefits when the homes are occupied
- 3.23 As each site is developed it is intended to create temporary show homes to help promote low carbon living. It is envisaged that the show homes would support SWT climate change awareness events and opportunities to support school and college curriculums.
- 3.24 The pilot seeks to develop an approach to low carbon which considers a broad range of carbon and energy factors through benchmarking alternative tender proposals against the London Energy Transformation Initiative (LETI) standard.
- 3.25 The LETI standard is one of several standards which the council has considered but is unique in its emphasis on the use of carbon and energy in the use of materials and construction of the house and in the rigor of collecting data to evidence carbon and energy savings. A summary diagram of the LETI standard can be found in Appendix 2.
- 3.26 The LETI standard considers four (4) key criteria:
- Carbon capture and energy use in the manufacture/construction of homes
 - Fabric first / well insulated and air tight buildings
 - Renewable heat and energy
 - Data collection and analysis
- 3.27 In addition to benchmarking against the LETI model the programme will be guided by the Taunton Garden Town principles and SWTs Design Guide and Checklist.

Procurement

- 3.28 A traditional development approach would tend to require the development of a client specification, progress planning permission and then procure a development partner to deliver the specification. The pilots approach is to recognise that offsite manufacturers tend to have a single or limited number of products which vary in quality and characteristic. Therefore we need to engage with manufacturers and test their product qualities before appointing.
- 3.29 The pilot is therefore seeking to use a competitive dialogue procurement process. This procurement approach allows a two stage tendering process where a short list of contractors is created after an initial tender process. The initial procurement stage usually allows two or three strong contractors to enter a conversation with the client to explore their offer in more detail for example through site visits, additional examination of their products, materials and approach. A second procurement stage will lead to a lead contractor(s) being appointed.
- 3.30 The use of a competitive dialogue process will allow SWT to be better able to measure bidders against the LETI benchmark standard. The procurement process

will also require certain quality hurdles to ensure the form first approach retains prominence for example thermal insulation values.

Rents for new build zero carbon homes

- 3.31 The Council wishes to retain flexibility over setting affordable or social rents to ensure homes are truly affordable to those in housing need whilst ensuring new housing schemes are financially viable. The approved HRA rent setting policy April 2020 provides the following guidance on rent charges for new homes. The guidance does not recognise the additional cost savings to the tenant of Zero Carbon Homes over the benefits in quality and thermal efficiency of a modern new home which achieves build regulation standards of thermal comfort.

What benefits will the Council gain as a result of this pilot?

- 3.32 The council will benefit from:

- Up to 50 Zero Carbon Council owned and managed homes which are close to Passivhaus standard (high quality low carbon homes)
- 50 HRA affordable rented homes with on-site renewable heating and energy (no gas)
- Neighbourhoods where SWT's Garden Town and Design Guide and checklist have been applied
- Better use of Council assets and the removal of some blighted sites
- A build specification that is capable of being used or adapted to future council affordable housing schemes
- An investment solution to resolve poor quality temporary accommodation
- Test the alignment of planning and housing in the delivery of low carbon homes
- The collection of a significant amount of knowledge gained through the delivery of the schemes and applied to the pipeline of council developments
- A number of challenges which the council will need to consider to sustain its zero carbon ambition and move towards a net zero carbon homes. Some of these may also come forward within the pilot:

Key Milestones

- 3.33 The timescales proposed are ambitious. Officers have appointed a number of contractors to support feasibility work including engineers to survey the sites, architects and an EA to prepare initial tendering briefs with the council and site capacity drawings.

- 3.34 Next Steps

- July – procurement of energy consultant
- Pre application planning discussions June/July
- July onwards - Consultation with garage tenants and negotiation with garage owners to purchase or swap their garages
- July procurement of architect
- August – commence procurement of main contractors potentially through a competitive dialogue process with site visits
- September – November - Main contractor appointment

- December 2020 – April 2021 - Planning permission progressed
- April – July - Start on site and off site construction phase 1 – 4-6 month programme
- Phases 2 and 3 follow including reducing the use of Sneddon Grove for temporary accommodation and providing suitable accommodation in other localities.

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