

Appendix C - Carbon Impact Assessment

Scope

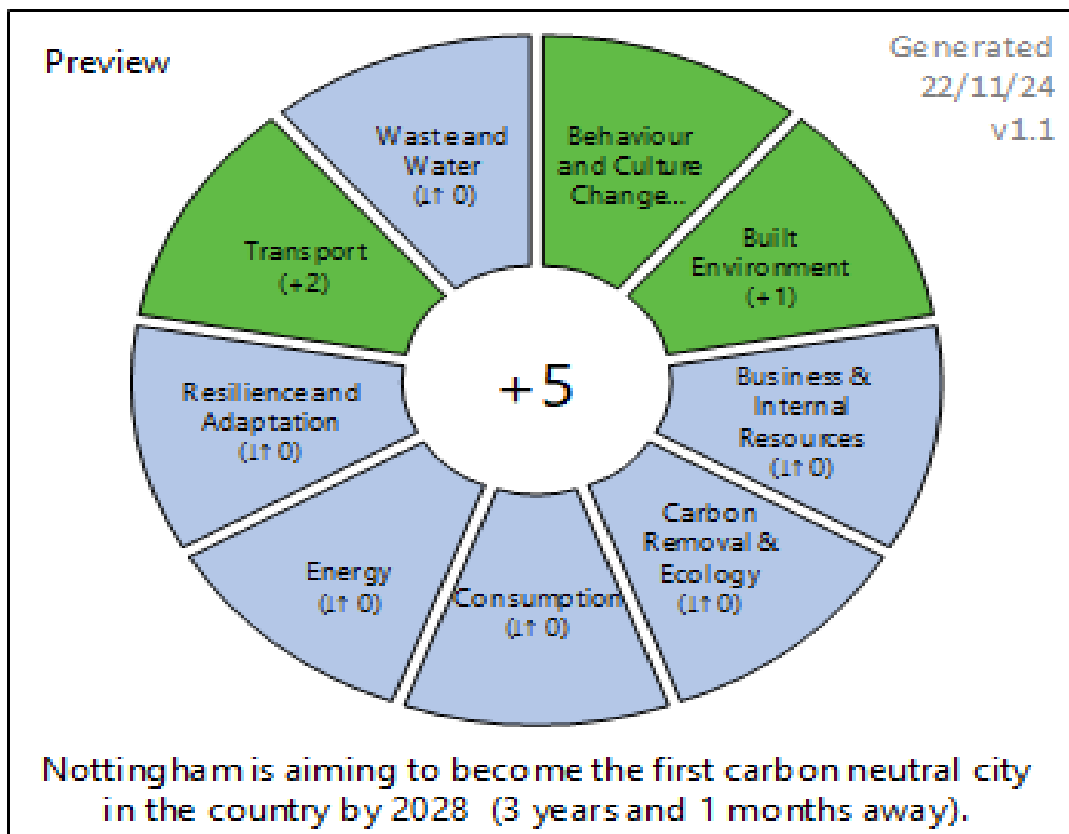
Previously the plans to develop the site was through refurbishing the building to create 27 units using the existing structure, this did not take place due to other suitable sites becoming available. We are now proposing a new build option with the demolition of the existing building and constructing new houses and a block of flats. This has become possible due to changes in the funding options as we can use 100% of right to buy receipts to fund the scheme as opposed to the previous regime of 50%.

The proposed scheme comprises around 40 homes made up from a total of 10 houses with a mix of two-bed and three-bed properties and around 30 apartments in one block of three storeys. This design will be subject to approval by planning and the homes will aim to be carbon efficient with a fabric first approach. The homes will be energy efficient with an aim to attain an 'A' SAP rating. Car charging points will be provided to all houses and some communal car parking spaces. Solar panels will be provided to all roofs. The current decision is seeking approval for a revised scheme, with the demolition of the former care centre on site and construction of 40 new-build homes. The scope of this Carbon Impact Assessment is for the new build scheme only and not for the initial idea to refurbish the Laura Chambers Lodge building.

Carbon Impact Assessment Dashboard

The Carbon Impact Assessment Dashboard (CIAD) has been utilised to produce infographic below. This gives a modified RAG rating showing the estimated impact of a decision on different issues which influence climate change. There are both direct and indirect impacts to consider in the construction of the scheme and the subsequent use of the buildings which have been fed into the CIAD. The scoring applied takes account of the following: -

- This is a small scheme which will affect only part of a ward
- The impact of the scheme endures over the buildings' lifetime and so, long past 2028



Key Costs and Benefits

- **Behaviour and culture**

- ✓ **Communication & engagement, working with communities** - The Home user guides given to tenants provide tangible examples of climate-positive and cost-saving measures. These include information on EV use, the benefits of solar panels and how to use smart meters to save water and energy. This information is also supported by a video and 1-1 home demonstration from an NCC clerk of works, to make sure information is delivered and understood. The video has subtitles to further help tenants understand their new home.
- ✓ **Wider Influence** – Delivery of carbon neutral/energy efficient homes illustrating the Council's Wider influence – commitment to carbon neutrality, enhances the Council's reputation and provides an exemplar project for others to follow.
- ✓ **Working with partners** - NCC and contractors are bound by the specification and expectations of good practice in sustainability. These properties will also be built to the Future Homes Standard.

- **Built environment**

- ✓ **Building construction** - Homes will be built to the Future Homes Standard, with high-quality insulation and solar panels included. Homes will also have smart meters installed, will be EPC graded A, and options to use timber frames will be explored.
- ✓ **Building use** - Proposal includes bicycle stores, bin storage with recycling and automatic lighting in hallways.
- ✓ **Switching away from fossil fuels** - Air source heat pumps will be considered to replace gas boilers, and EV charging ports will be provided, reducing reliance on petrol and diesel cars over time.

- **Business & internal resources**

- ✓ **Sustainability in business** – Adherence to the Future Homes Standard represents a notable increase in business sustainability.
- ✓ **Material / infrastructure requirement** – Highest possible standard products and materials to be used where possible, adhering to the Future Homes Standard.

- **Carbon Removal & Ecology**

- ✓ **Carbon storage** – A tree survey has been completed, identified existing mature trees, which will be kept on site, where possible - 25 trees, with 11 identified as category B and worth retaining, with only 4 recommended to remove. No existing major carbon sink or storage will be disturbed.
- ✓ **Biodiversity & Ecology** - Existing overgrown former garden will need to be removed and will be partially built over. Biodiversity Net Gain assessment will be carried out – to meet this target consideration will be given to enhancing biodiversity beyond current levels. Green spaces on the plot will be close to parkland and other green space, providing opportunities for connected habitat.

- **Energy**

- ✓ **Reducing energy demand** – Newly built homes will increase need for energy provision but will make use of as much sustainable energy provision as possible, with solar panels guaranteed and consideration for air source heat pumps on site. Compared to the proposed refurbishment of the existing property, new build housing will be significantly more energy efficient.

- **Resilience and Adaptation**

- ✓ **Green / blue infrastructure** – Runoff on impermeable parking surfaces will be improved with better drainage.
- ✓ **Natural flood management** – There will be some improvement to land permeability, with the removal of concrete, introduction of gardens and retention of existing vegetation.
- ✓ **Heatwave vulnerability** – Tree cover will be retained, with benefits for water retention and shade provision.

- **Transport**

- ✓ **Staff travel requirement** – There will be an increased need for travel, for construction and future maintenance, compared to the current unused site.
- ✓ **Decarbonising vehicles** – Electrical vehicle charging ports will be provided.
- ✓ **Improving infrastructure and Supporting people to use active travel** - Bicycle storage will be provided on site.
- ✓ **Reduced need to travel** – Provision of new housing in close proximity to local services including schools, shops and health services will significantly reduce tenants' need to travel for regular tasks. Where further travel is necessary, housing will be close to public transport links, including tram and bus travel.

- **Waste and Water**

- ✓ **End of life disposal / recycling** – Labelled recycling bin storage will be included at flats, increasing rates of recycling.
- ✓ **Waste volume** - The existing former care home on site will need to be demolished, generating a large quantity of building waste. Where, possible this material will be reused. Using brick and concrete material to fill the site basement and reusing roof tiles are both being considered.
- ✓ **Water use** - There will be increased demand for water, due to new housing and tenants.