

Matrix to Assess Climate Change Impacts – Avenue Road Regeneration: Revised Delivery Proposals

Aim is to reduce Carbon Emissions (CO2) by 80% by 2050	Positive impact	Negative impact	Mitigation measure	Effect on CO2 emissions (+ or - tonnes of CO2)	Opportunity to promote
Water Water Use and Flooding	Enhanced water efficiency in the new homes – The proposed development will benefit from SUDs such as living roofs, permeable paving and geo-cellular storage.	Increased housing numbers and density	Enhanced water efficiency in the new homes. Redesigned public realm and road layouts	Not known – will be identified as detailed plans are worked up.	Reinforce with new occupants at stakeholder events and handover of new properties New residents to receive technical demonstration of appliances and user manual

<p>Energy Energy efficiency and energy saving in buildings, including opportunities for installation of renewable energy generation</p>	<p>Avenue Road estate will have a district heat network to provide locally produced energy to all homes.</p>	<p>There will be an increase in the number of units but this will be mitigated in part by having a more efficient energy standard.</p>	<p>Significantly improved energy efficiency across the new homes and wider estate.</p> <p>An energy strategy and plan to be developed through the construction of the development.</p>	<p>A target of 15% reduction in regulated CO2 emissions surpassing policy requirements of 10% through energy efficiency measures alone</p> <p>A requirement to achieve regulated CO2 savings in excess of 35% with the use of a communal heat network heated by air source heat pumps and boilers.</p> <p>We will also use electrically generating solar photovoltaics to help further decarbonise the development.</p>	<p>Inclusion of such a communally heated network and energy centre will greatly assist the Developer Partner to meet the required planning policy carbon reduction targets.</p>
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Air Air quality, pollution	Discouraging car use and encouraging walking, cycling and use of public transport. The new development will be car free to all new residents buying homes and parking only included where re-provided for existing residents.	Several year project development period may see short term drops.	The scheme will include cycle ways, green spaces and private gardens An air quality assessment is required as part of the planning process.	Not known – will be identified as detailed plans are worked up.	Reinforce with new occupants.

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Waste – reducing, reusing and recycling waste	Efficient and up to date waste management and recycling both within the demolition and construction processes through a waste strategy, but also in terms of the facilities provided for the residents once the development is completed	Increased housing density. Demolition of existing homes.	Redesign of the estate with more ambitious and efficient waste management and recycling proposals Waste strategy and plan to be required and agreed through the construction process.	Not known – will be identified as detailed plans are worked up.	Reinforce with new occupants.
Land Use of brown-field and green-field sites	The proposed development is on an existing brownfield residential site.	Increased housing density	Community space on current estate will be re-provided and there will be a better use of land.	Not known – will be identified as detailed plans are worked up.	Redevelopment of brownfield sites, minimises impact on green field land and improves upon existing standard of housing.

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Bio-diversity Effects on bio-diversity including green space, trees, rivers and streams	Improved open space and new green space and trees.	Temporary interruption during construction phases	Bio-diversity management plan will be required and agreed as detailed plans are worked up.	Not known – will be identified as detailed plans are worked up.	The redevelopment of will provide new public realm and increased open space available to all local residents

<p>Transport Travelling to deliver service. Discouraging car use and encouraging walking, cycling and use of public transport</p>	<p>Encouraging sustainable modes of transport through the provision of 509 cycle storage spaces and electric vehicle charging points.</p> <p>In line with standards in the Local Plan car parking on the scheme will be developed dependent on a number of criteria including: The PTAL score of the development zone. Number of bedrooms per dwelling. The current local CPZ.</p>	<p>Circa 8 year project development period will see short term interruptions.</p>	<p>The estate will have a low car usage strategy for the area.</p> <p>The development is located close to public transport.</p> <p>Cycle parking and safe routes are incorporated into the design of the development.</p>	<p>Not known – will be identified as detailed plans are worked up with developer.</p> <p>A 10% reduction in car ownership would equate to travelling 55 miles less by vehicle (balanced by increase in car sharing, cycling, walking or public transport) saving 0.01 tonnes of CO2 on average per person.</p>	<p>Reinforce with new occupants.</p>
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<p>Buildings Adaptability of buildings to heat or flooding. Use of green roofs, rainwater harvesting etc.</p>	<p>90% of the new dwellings to meet Building Regulations Approved Document M4(2) and 10% will meet Part M4(3)</p> <p>Commercial elements to achieve BREEAM Very Good.</p>	<p>Minimal</p>	<p>Overheating strategy to be implemented.</p>	<p>Meet a 40% carbon reduction below building regulation standards.</p>	<p>As the design process evolves, aspects of the redevelopment could be showcased.</p>

Commentary on any differences in financial costings for climate change mitigation / adaptation measures including energy efficiency and potential external grant sources

Not known – will be identified as detailed plans are worked up.

Potential “whole life costing” savings ie: increased installation costs will achieve running cost savings over lifetime; including reduced use of resources eg: water saving devices

Not known – will be identified as detailed plans are worked up.

Explanation of Proposal chosen in context of results matrix assessment, including what mitigating steps can and have been taken

The option chosen for delivery of the regeneration programme will give the Council more control and influence over final design before and during the construction process. Sustainability has been used as part of criteria for selecting the Developer Partner.

Total Tonnes of CO2 & DEC rating of building to be occupied

The proposals will deliver the Councils CO2 reduction target of 40% below building regulations (2010) by reducing by 225 tonnes per annum.