

## Eco Impact Checklist

<b>Title of report: Hawkfield Business Park and Bottle Yard Studios</b>				
<b>Report author: Oliver Roberts</b>				
<b>Anticipated date of key decision: 25th February 2021 Cabinet</b>				
<p><b>Summary of proposals:</b>          The development site is at Hawkfield Business Park (HBP), a former warehouse / factory building, purchased by the Council in 2019. The proposed development is to convert the building to develop three film and tv studios, with supporting back of house and ancillary facilities. Overall the scheme will refurbish circa. 7600m<sup>2</sup> of the ground floor of the existing building to create three new large studios (c.4,000m<sup>2</sup>); Back of House (BoH) construction area for sets, prop stores and dimmer rooms (c.1650m<sup>2</sup>); circulation (c.1300m<sup>2</sup>) and supporting welfare and ancillary spaces (c.650m<sup>2</sup>). No works to the existing office building and 1<sup>st</sup> floor office area is proposed as part of the project.</p>				
Will the proposal impact on...	Yes/ No	+ive or -ive	If Yes...	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Yes	-ive	<p>During construction there will be direct emissions from construction vehicles and staff travel and indirect emissions through energy consumption.</p> <p>Embodied carbon in building materials.</p> <p>The development will lead to an intensification of the site and therefore during operation there may be increased indirect emissions from energy consumption and occupier travel, visitor travel, generation of waste to landfill.</p> <p>If all the measures needed to contribute sufficiently to achieving carbon neutrality are not introduced now and need to be retrofitted later, they will be more expensive and</p>	<p>A Construction Management Plan (CMP) will be developed for the project, which will identify appropriate environmental management measures to minimise waste and the impacts of construction traffic.</p> <p>The development will consider opportunities to reduce embodied carbon in the materials used for construction. Where possible, BRE Green Guide A or B rated materials will be used.</p> <p>A Travel Plan will be produced to encourage and maximise use of public transport and active travel for occupiers and visitors to the HBP Film Studios. The development will provide secure cycle parking. The site is well connected to the existing public transport network located at Hengrove Park, including the Metro Bus route. The close proximity to the existing Bottle Yard Studios will allow active travel between the two sites and short journeys for moving equipment and sets.</p> <p>2 Electric vehicle charging points</p>

			<p>disruptive and will mean that more carbon is emitted in the interim.</p> <p>+ive Improved energy efficiency of buildings</p>	<p>have been installed as part of meanwhile use and further will be considered if grant funding is available.</p> <p>The converted building will have improved energy efficiency, through proposed measures, including replacement of lighting with LED units and natural ventilation, in place of existing mechanical ventilation units.</p> <p>The development will explore funding opportunities to further reduce carbon emissions in accordance with the citywide carbon neutrality target.</p> <p>It is proposed to remove the gas radiant heaters as part of the conversion works. Options for electric heating will be considered, including the option of electric radiant heating supplied by solar and fully renewable tariff. The option of air source heat pumps is being considered if supporting grant funding can be secured. It is noted that considerations for direct electric heating are higher running costs, cumulative impact on the grid and higher carbon emissions than heat pumps. See resilience for avoiding overheating.</p> <p>The roof is suitable for photovoltaic solar arrays and feasibility studies on different options have been carried out, including sleeving surplus power to be used on the main Bottle Yard Studios site. A business case for investment in a solar array is being developed for funding through the Council's Energy Services Capital Programme.</p>
Bristol's resilience to	Y	+ive	Development of brownfield land	The development will be on Brownfield, rather than Greenfield

the effects of climate change?		-ive	<p>The high levels of vegetation and tree cover on the boundaries of the site help provide resilience to climate change</p> <p>The development will likely increase mains water and energy consumption.</p> <p>The development is not in a flood risk area and is not changing the site in a way that would make flooding more likely.</p> <p>The council's satellite heat mapping data shows that hot spots sometimes develop around the North Eastern corner of the site in hot summer weather.</p> <p>A housing development adjacent to the Southern boundary of the site will create some noise during both construction and use, but there will be a wildlife corridor left between the two sites.</p>	<p>land and will repurpose and intensify the use of the site, making better use of available land resources.</p> <p>Landscaping across the site will be retained and managed.</p> <p>Specification of products with low energy / water consumption use. Tenants will be encouraged to use water and energy efficiently, including in respect of equipment bought in for productions.</p> <p>Natural ventilation is part of the design, but the potential for additional roof insulation and heat pump cooling will be dependent on additional funding bids. The acoustic ceilings above the studios will provide limited thermal insulation.</p> <p>The existing thermal and acoustic Rockwall insulation in the double-skinned external and internal walls are adequate for keep sound and temperature gain and loss within acceptable tolerances. Acoustic ceilings will be installed over studios.</p>
Consumption of non-renewable resources?	Y	-ive	<p>In the short-term, there is potential for the consumption of fossil fuels and other non-renewable materials arising through the use of energy and materials during the construction works.</p>	<p>Sustainability of building materials will be considered in the design. For example the project is specifying use of Fermacell Gypsum Fibreboard in place of plasterboard, which is made from recycled gypsum, recycled cellulose fibres from post consumer waste paper and recycled water.</p>

			In operation there will be consumption of fossil fuels for heating and power, and also for travel to and from the site.	<p>A Travel Plan will be developed for the development</p> <p>Reduction in consumption of non-renewable resources will be investigated through the option of on-site renewable energy generation through a photovoltaic array. In addition consideration of a sleeving arrangement to the main Bottle Yard Studios Site would ensure full utilisation of any energy generated between the two sites.</p>
Production, recycling or disposal of waste	Y	-ive	<p>Waste will arise from construction and demolition works.</p> <p>Waste will arise from the normal operation of the site.</p>	<p>Minor demolitions of internal walls are required to facilitate the conversion works. There will not be opportunities for reuse of materials on site. Waste Management Plans will be created for the Construction and Operational Phases of the development to minimise the level of waste produced and maximise the amount of waste that is reused, recycled and diverted from landfill.</p>
		+ive	Adaptability of development to avoid future waste	<p>The Bottle Yard Studios are developing a Sustainability Statement, which will also apply to the Hawkfield Site.</p> <p>The studios will be developed to ensure future adaptability for changes in future use requirements. The potential to donate certain types of set building materials to reuse organisations will be considered.</p>
The appearance of the city?	Y	+ive	The proposed development will not alter the external appearance of the building, but will create good quality studios spaces within the converted building for users and visitors, including audiences and help raise the profile of the city. This use of the	

			site will protect the wooded area of the site.	
Pollution to land, water, or air?	Y	+ive	Contamination	The development is located on a brownfield sites; the proposals will assess the risk of any potential contamination, including for asbestos in the existing building and put in place suitable remedial measures.
		-ive	<p>There is a risk of hazardous materials (e.g. fuels or paints) being accidentally released during construction works.</p> <p>Construction works may generate mud, dust and noise.</p> <p>An increase in traffic associated with intensification of the site's use will potentially impact on air quality within the city.</p>	<p>Construction environmental management arrangements will be produced and documented, which will include detailed controls and measures for the Control Of Substances Hazardous to Health (COSHH); and for minimising and mitigating the resulting effects of construction activity, such as the generation of dust and noise.</p> <p>It is expected that during the construction phase the site(s) will be registered to the Considerate Constructors Scheme.</p> <p>The site is in close proximity to existing public transport and cycle path networks, including multiple bus routes. A Travel Plan will be developed to maximise use of these forms of travel over car use.</p>
Wildlife and habitats?		+ive	The site has good vegetation cover around boundaries, which will be retained and managed.	<p>No works are proposed which will reduce vegetation on the site or destroy any habitats.</p> <p>Potential for bird / bat boxes on the site can be considered.</p>
<p><b>Consulted with: 2.</b> At a project/design level, proposals have been developed in collaboration with internal teams, including Strategic Property, Economic Development, Major Projects and Culture - including the Bottle Yard Studios.</p> <p>The Council's Environmental Performance Team has reviewed and commented on this assessment.</p>				
<p><b>Summary of impacts and Mitigation - <u>to go into the main Cabinet/ Council Report</u></b></p>				

The significant impacts of this proposal are the creation of waste through demolition and construction works. Consumption of non-renewable resources and emission of Climate Changing Gases associated with the construction and operation of the Studios.

Key considerations and actions have been identified as follows:

- a Construction Management Plan (CMP) will be developed by the Contractor for the project, which will identify appropriate environmental management measures to minimise waste and the impacts of construction traffic.
- project development has considered opportunities to reduce embodied carbon in the materials used for construction.
- a Travel Plan will be produced by the Council to encourage and maximise use of public transport and active travel for occupiers and visitors. The development will provide secure cycle parking. The site is well connected to the existing public transport network located at Hengrove Park, including the Metro Bus route.
- The project has considered opportunities to reduce carbon emissions in accordance with the citywide carbon neutrality target by 2030. The Core Proposal for the development of HBP includes energy efficiency measures for the installation of natural ventilation to studios and upgrading of lighting with low energy LED lights.
- The Core proposals are based on the existing TBYS model of production companies bringing in heating and cooling equipment as required for their production requirements. The project is considering other heating options including an added value option of installing air source heat pumps to provide heating and cooling to the Studios and is looking at grant funding opportunities for this.
- Investigation of potential for reduction in consumption of non-renewable resources to be secured via on-site renewable energy generation through a photovoltaic array, based on availability of energy investment or grant funding.
- Migrate site electricity supply to 100% renewable tariff in May 21, when the contract renews.
- A business case for investment in a solar array is being developed for funding through the Council's Energy Services Capital Programme.
- It is proposed to look at not using the existing gas connection for any heating and the potential option of disconnecting the supply will be considered.
- Tenants will be encouraged to use water and energy efficiently, including in respect of equipment bought in for productions.
- The significant areas of existing landscaping across the site will be retained and managed where appropriate for nature conservation / ecological benefit.
- Waste Management Plans will be created for the Construction and Operational Phases of the development to minimise the level of waste produced and maximise the amount of waste that is reused, recycled and diverted from landfill.
- The Cabinet Report is seeking approval for future bids for decarbonisation grant funding up to the value of £3m for carbon reduction measures at both the HBP site and the existing Bottle Yard Studios site, to allow the sites to be reactive to future

funding opportunities, based on assessment of available carbon reduction measures.

The overall environmental impact is likely to be positive, although it may not be possible to finance the full range of measures needed to make this a carbon neutral site at this time.

**Checklist completed by:**

Name:	Oliver Roberts
Dept.:	Major Projects
Extension:	x 74179
Date:	22/01/2020
Verified by Environmental Performance Team	Giles Liddell, Project Manager - Environmental