Technical note to address conditions pursuant to Reserved Matters application 17/01542/REM

Condition 6: Sustainability and Energy Statement

This statement sets out to address the above planning condition; it does so by addressing all items noted in Cherwell District Council's document titled "Information requirements for policies ESD 2, 3, 4, and 5 of the Cherwell local plan part 1 – Energy Statement – Best practice".

It is noted that this guidance is dated July 2016 and the planning for design and sustainability of the park began in 2013 to early 2014. While advances in materials, technology and energy generation have been keenly incorporated where possible, this project has been fastidiously planned to the highest standard since the inception of the project.

Policy ESD 2

This scheme takes a pro-active approach to minimising the energy demand of the proposed buildings, and as such has approached the topic of energy usage in a logical and practical manner. The buildings have been designed with principles of sustainability and efficiency, both of energy and materials, from the beginning of the design process; as accords with the BREEAM process. As such the simplistic test suggested by ESD 2, does not apply to these buildings. They were not designed and then amended in order to accord with an energy target, which is what this policy assumes. Rather they were designed from the start to meet aspirational energy and sustainability targets. Hence the inclusion of a BREEAM pre-assessment with the outline application submission in December 2014.

The BREEAM process has been followed through the planning and design stages, to ensure targets are met the BREEAM process requires a very thorough design plan and pathways to achieving targets. In accordance with our own aspirations to achieve BREEAM 'Excellent' over and above the outline planning condition to achieve BREEAM 'Very Good', we have had SBEM models completed on the designs to ensure that our target of BREEAM 'excellent' can be met and to give specific feedback on the materials included in the design. The SBEM models re-iterate principles that have been set as benchmarks. Such as the overall efficiency of buildings in terms of their design and materials used, as well as the unsuitability of de-centralised heat networks in such locations. Also noted is the suitability of the buildings roofs for solar PV electricity generation.

Policy ESD 3

As noted in the commentary to ESD 2, it has been demonstrated that these buildings have been designed in accordance with BREEAM 'Excellent' standards from the very beginning of the design process. In any event, we have a condition applied to the outline consent of complying with BREEAM 'very good' standards as a minimum.

Policy ESD 4

The energy demand will be met through the combined use of electricity and natural gas depending on the specific requirement. Where possible renewable sources will be utilised for the electrical supply. The electrical supply will be procured with a renewable source supplier, and where possible electricity will be generated via Solar PV panels on the roofs of the hybrid units (shown as 3 to 14 on the outline master-plan).

The energy supply to OTP is far more complex than the heating, lighting and IT requirements of residential and simple office buildings, with the gas supply being fundamental to a range of laboratory, R&D and production uses that OTP has been designed to accommodate and that the outline planning permission grants consent for. It is noted that natural gas supplied via the mains gas distribution network produces less carbon and nitrate pollution than other non-renewable sources, as such it is foreseen that this fuel will be utilised in the medium term. It is also noted that there are many renewable alternatives to coming through the market, it is envisaged that these will play a role as energy sources where gas is currently utilised.

The feasibility of district heating/ combined heat and power was considered during the BREEAM pre-assessment process conducted previously and considered to be not feasible for the reasons discussed above. These reasons included;

- Extremely low heating/ cooling requirement because of the materials chosen for the construction of the units and their efficient thermal insulation within the fabric of the building
- In this type of development it is far more efficient for the electricity supply to be procured separately, whether this is via a renewable based supplier or from solar P.V. panels or a combination of both.
- Specific fuel requirements of occupier for laboratory and R&D based processes.

Policy ESD 5

The only renewable energy generation technology that is practical and feasible to operate on OTP is solar PV electricity generation. Due to the design of the hybrid units, these panels can be accommodated on the roofs with no impact on visual impact, air quality or increase to traffic generation. In addition, there would be no further planning issue in doing so.

Detailed analysis of potential renewable energy technology and provision has been conducted through-out the BREEAM process thus far, as we have moved forward from the pre-assessment previously submitted and conducted SBEM analyses, designs and strategies.

Wider Sustainability

Overall, OTP has been designed in order to strive for sustainable development in all areas.

- **The drainage strategy is fully SUDS compliant, in order that the surface (storm) water drainage is equivalent to green field run-off rates.**
- **The materials used in the construction of the buildings will be recycled and recyclable where possible.**
- **The travel plan formed in accordance with the county highways strategy encourages the use of public transport through the bus that links to the park & ride, and parkway train station. This bus will be supported by the park through S106 contributions for the first five years of occupation as a 'pump priming' exercise.**
- **The travel plan also encourages cycling to the park through suggesting practical routes, and providing plenty of covered cycle parking racks. OTP will also provide a cycle path link from the main access road to the A44 and the international cycle route which runs along the A44, as per the county highways S106 requirement.**
- **Further to the cycle link we will be providing above OTP aims to encourage cycling through researching and assisting with the implementation of further cycle routes around the local area.**
- **During the occupation of OTP, recycling will be facilitated on a site wide basis**
- **Onsite provision of food and drink with an informal meeting space through the provision of an onsite coffee shop, restaurant and bar (part of the current hotel planning application) will encourage people to meet, eat and socialise onsite during the working day and reduce travel in order to procure food and drinks.**