# Greater Cambridge Shared Planning Service logo BNE Team (Sustainability)

# ****Consultation Response Form****

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| **Reference number:**  | 22/02771/OUT |
| **Application type:**  | Hybrid application |
| **Proposal:** | A hybrid planning application for:a) An outline application (all matters reserved apart from access and landscaping) for the construction of: three new residential blocks providing for up to 425 residential units and providing flexible Class E and Class F uses on the ground floor (excluding Class E (g) (iii)); and two commercial buildings for Use Classes E(g) i(offices), ii (research and development) providing flexible Class E and Class F uses on the ground floor (excluding Class E (g) (iii)),together with the construction of basements for parking and building services, car and cycle parking and infrastructure works.b) A full application for the construction of three commercial buildings for Use Classes E(g) I (offices) ii (research and development), providing flexible Class E and Class F uses on the ground floor (excluding Class E (g) (iii)) with associated car and cycle parking, the construction of a multi storey car and cycle park building, together with the construction of basements for parking and building services, car and cycle parking and associated landscaping, infrastructure works and demolition of existingstructures. |
| **Site Address:** | Land north of Cambridge North Station, Milton Avenue, Cambridge |
| **Sustainability Officer:** | Emma Davies |
| **Case officer:** | Fiona Bradley |
| **Date:**  | 3 August 2022 |

Comments

Please find below comments on the hybrid planning application for development at Cambridge North. These comments focus on the sustainable design and construction aspects of the proposals, with reference to information in the Design and Access Statement, Sustainability Strategy, Energy Strategy and relevant drawings. It should be noted that there was no involvement from sustainability officers in pre-application discussions for these proposals, beyond a workshop session in May 2021 when the scheme was at a very early stage in its development.

**Overall approach to sustainable design and construction**

The Design and Access Statement makes reference to the development of Cambridge North presenting the opportunity to advance resilient design and respond to the climate emergency. I am supportive of this aspiration, and there are a number of commitments made in the Design and Access Statement and Sustainability Statement that are welcomed, including:

* Achievement of a minimum of BREEAM excellent for the commercial unit with an aspiration for BREEAM outstanding.
* An all electric approach with the use of air source heat pumps for both commercial and residential development. The energy strategy predicts between a 30-35% improvement in emissions compared to a Part L 2021 compliant baseline for the residential elements of the scheme. I welcome the reference in the Energy Strategy to linking the residential buildings together to form a communal heat network, which may help reduce the number of air source heat pump units required (and see comments below about targeting a specific space heating demand which would provide further efficiencies in relation to number of heat pumps needed). Careful consideration will need to be given to the location of the heat pump units as we would not want to see them taking up private external amenity space by being located on balconies.
* Reference to WELL assessments being undertaken for all commercial units, although it would have been useful to include the specific rating being targeted.
* Reference to use of the soft landings framework and the use of post occupancy evaluation, although I would query why BREEAM credits related to post occupancy evaluation do not appear to be targeted. It would be helpful if stronger links could be made between the targets in the Sustainability Strategy and the BREEAM assessment methodology for the commercial units.
* Water efficiency of 110 litres/person/day for the residential development and a 40% reduction (3 BREEAM Wat01 credits) for the commercial development, which meets, and in the case of the commercial floorspace, exceeds current policy requirements.
* Implementation of key Circular Economy principles. I would recommend that the applicant develops and implements a Circular Economy Strategy for the site.
* Proposals set out in the Sustainability Strategy to assess the residential elements of the scheme using the detailed dynamic thermal modelling (TM59) route set out in Part O of the Building Regulations, and for modelling to be undertaken using future climate scenarios. I would recommend that instead of the medium emissions scenario, the high emissions scenario be used, in part in response to the heatwave recently experienced in the UK and given the high-density nature of this proposals. I do however have concerns about the amount of single aspect units proposed, as detailed in comments below.
* Extensive use of biodiverse roofs combined with solar panels. Proposals to integrate opportunities for food growing are also welcomed, although I will leave detailed comments on the landscape proposals to Landscape Architect colleagues.

The general approach to sustainable design and construction is welcomed, albeit there are some inconsistencies between documents, and it is considered that in some areas the Sustainability Strategy is lacking in tangible metrics and targets, an issue that was raised by Cambridgeshire Quality Panel. In addition to the areas considered above, a further area is in relation to energy targets, where there is inconsistency between documents.

It must be highlighted that the proposals do exceed the requirements of current policy CC/3 set out in the 2018 South Cambridgeshire Local Plan, which is welcomed. Those policies are now out of step with the approach needed to respond to net zero carbon, and as such there is an expectation that all development proposals will go beyond these requirements. The proposed development does show some promise in this area, but there needs to be greater clarity on what metrics are being targeted. The Design and Access Statement and Sustainability Strategy reference the use of in-use energy targets from LETI, although the numerical targets themselves are not referenced, which would have been useful to see. In contrast, the Energy Strategy does not reference these targets, instead referring to the new Part L 2021 requirements and the Future Homes Standard. If the scheme is to truly deliver its ambition set out in the Design and Access Statement of advancing resilient design and responding to the climate emergency, and indeed be in line with the emerging North East Cambridge Area Action Plan, I would recommend that the focus be on meeting the LETI in-use energy targets as well as utilising the space heating demand requirements also recommended by LETI. Targeting Part L 2021 and the Future Homes Standard will not realise the vision for the development. It is considered that this could be dealt with by way of an appropriately worded condition related to the implementation of the Sustainability Strategy, pulling out specific targets that would need to be addressed by future reserved matters applications.

There are also inconsistencies between strategies in relation to electric vehicle charging. The Low Emissions Strategy references that for the commercial development, provision will be made to enable each bay to access an ev charger, with electric vehicle charging points provided for each of the residential car parking spaces. The Sustainability Strategy on the other hand notes that 25% of car parking spaces will be active while the rest will have passive charge point provision. The Sustainability Strategy goes further to note that the current ev quantities are as follows:

* Residential:
	+ At least half of the parking bays to be provided with slow ev charge points
	+ Installation of passive charge points for all other spaces
* Commercial
	+ At least one slow ev charge point for every two parking bays
	+ Installation of passive charge infrastructure for all other bays.

This inconsistency between documents in not helpful, and greater clarity is needed in order that officers can make an informed judgement on these proposals, especially given the links to air quality and minimising the transport impacts of the proposals.

While there is much to commend in terms of sustainability, albeit with a bit more clarity on targets, I am of the view that to futureproof the residential elements for higher temperatures and advance resilient design the number of units that benefit from cross ventilation needs to be maximised, something which I consider needs to be committed to as part of the outline permission. This is an issue that was raised by Cambridgeshire Quality Panel, and while it is noted that the applicant has introduced ‘more’ dual aspect and corner units, it is quite difficult to determine the number of units that would benefit from cross ventilation from the information that has been submitted; a clearer statement of numbers of single aspect units would have been useful. In the absence of more detail on the precise number of units that benefit from cross ventilation, and given the high-density nature of this site, I have concerns that even with the use of detailed thermal modelling, it will become increasingly difficult for residents in such units to maintain a comfortable internal living environment without having to resort to active cooling. While we cannot rule out the need for cooling in the future, all possible design measures need to be taken to reduce internal heat gains, with the Sustainability Strategy for the scheme making clear commitments to prioritising passive design measures and maximising dwellings that benefit from cross ventilation, in line with the definition of cross ventilation set out in Part O of the Building Regulations (i.e., a dwelling that has openings on opposite facades. In line with this definition, corner flats would not meet the definition of cross-ventilation). Where cross ventilation is not possible the architectural response to mitigate the risk of overheating will need to be maximised. While it is recognised that assessment of overheating is now covered by Building Regulations, it is considered that there are specific design related aspects related to the scale and layout of schemes and architectural approach that are still of relevance to the planning system, as noted by paragraph 153 of the NPPF and policy CC/1 of the South Cambridgeshire Local Plan which notes that developments should use layout, building orientation, design and materials to ensure that properties are not susceptible to overheating. In the absence of specific reference to maximising cross ventilation for the residential aspects of the proposals and a clearer indication of measures that will be applied to single aspect units as part of the Sustainability Strategy I am unable to give the proposals my full support.

**Comments on the detailed planning application**

Turning to the detailed proposals for the three commercial units and the mobility hub, BREEAM pre-assessments have been submitted for One Milton Avenue (S4) and 1 – 3 Station Row (S6 and S7). These show that the buildings are currently on track to achieve a BREEAM ‘excellent’ rating, with scores for each building of 84.42%. This is very close to the minimum score required for BREEAM ‘outstanding’ and additional potential credits have been identified to enhance this score to 94.77%. This approach is welcomed. With regards to energy, the strategy includes the use of air source heat pumps and photovoltaic panels, reducing emissions by around 42% compared to a Part L 2013 compliant baseline. In terms of BREEAM credits for energy (Ene 01), 8 credits are being targeted, which meets the minimum requirement for a BREEAM outstanding building. The indicative layout of the photovoltaic panels is shown on the roof plans for each building. This overall approach is welcomed.

It is noted that the mobility hub, being an unoccupied space, has not been subject to a BREEAM pre-assessment, an approach that has been supported on other schemes that have delivered mobility hubs. The building does still have an energy demand from regulated energy however, so it would have been useful to have included this in the energy strategy, setting out measures that are to be implemented to reduce the energy demands of the building. It is also not clear what the electric vehicle charging strategy is for the mobility hub. The Design and Access Statement does make reference to a ‘robust electric vehicle charging strategy’ as well as noting that the hub could be converted to residential car parking in the future. If this conversion does take place, it will be important to ensure that electric car charging provision is made both in the form of active spaces and the provision of passive charge point infrastructure so that the addition of active spaces in the future can be accommodated. Given the inconsistencies between documents as to charge point provision, more clarity on this point is needed.

Conclusion

While there is much to commend in terms of sustainability, for officers to be able to make an informed decision and to have certainty as to the standards to which the proposals will conform, it is considered that inconsistencies between strategies need to be rectified and, in some areas, clearer targets are needed. I also have concerns about the potential risk of overheating for those residential units that will not benefit from cross ventilation and there is a need for the outline application to commit to maximise cross ventilation to minimise this risk. It is considered that this must be addressed as part of the outline proposals in order that officers can have the confidence that what is proposed can actually be delivered on site in advance of detailed modelling being undertaken without significant changes to the design and layout of the proposals being required. In the absence of this certainty, I am unable to give the proposals my full support in light of the requirements of policy CC/1 of the South Cambridgeshire Local Plan as supported by the Greater Cambridge Sustainable Design and Construction SPD.