

Climate Change Statement for Planning Applications

Part 1: Applicant details Name of applicant/agent

Name of applicant / agent	University of Huddersfield
Site address	Southgate Campus Old Leeds Road Huddersfield HD1 1SG
Description of development	Construction of a new multi-storey car park (MSCP), as part of the ongoing Southgate Campus development.

Part 2: Climate Change Mitigation measures

Please respond to the following questions considering the measures set out in the Climate Change Guidance note:

Q1: What measures have been/will be taken to reduce the energy demand associated with your proposed development beyond the minimum required in Building Regulations? (See section 2)

Whilst the MEP strategy associated with the construction of a new multi-story car park is relatively simple, it is still important to consider the efficient use of energy in all aspects of the design, from the circulation and carpark lighting to the performance of ancillary spaces, circulation and associated plant installations.

The intention is therefore to minimise energy consumption by using passive design features including:

- Optimising façade treatments to promote natural ventilation
- Arranging stair cores to promote natural ventilation for passive smoke control
- Optimising fabric elements and glazing design where applicable
- Using appropriate MEP solutions to optimise plant efficiency, limiting energy losses in use – i.e. use of high efficiency LED lighting and smart controls to reduce energy consumption
- Integration of smart energy metering to provide accurate data for continual energy improvement
- Due to the nature of accommodation, limiting overall building heat energy demand to an absolute minimum (i.e. frost and fabric protection only)

The focus is on minimising energy use intensity and driving down carbon production as part of the wider project targets to reduce the impact on the surrounding environment.

Q2: What measures have been/will be taken to limit the carbon consumed through the implementation and construction processes, e.g. by reusing existing on-site materials or sourcing materials locally? (See section 3)

Wherever possible the structural materials should be sourced locally. For precast manufacturers weighting should be given to local contractors. Insitu concrete is typically sourced from a local batching plant. The MSCP should utilise prefabrication as much as possible. The car park should have a long life to first maintenance. More detail will be provided when a MSCP contractor is on board.

Q3: What measures have been/will be taken to utilise renewable or low carbon energy sources? (See section 4)

Along-side the passive design measures implemented on the new MSCP, one of the key project considerations is the integration of an active PV array to the new build development. Whilst not essential to demonstrate Part L compliance and the reduction of building energy in use, the PV array will contribute to the building's aspirational targets towards net zero carbon in operation, lower overall running costs and support the 'all-electric' building design.

PV arrangements have therefore been assessed for the building against a notional target value of 11kWh/m² (best practice energy value for similar facilities based on CIBSE TM48 – Energy Benchmarks) and optimised to suit the layout and orientation of the proposed development.

Due to the inherent low heating energy demand on the proposed development, other opportunities such as the use of heat networks, ground/air source heating and cooling etc. have been discounted, and with solar photovoltaic panels providing a best fit approach for a low carbon energy source for the building.

Q4: What measures have been/will be taken to ensure the building design and layout has been optimised to energy efficiency beyond the minimum requirements in Part L of the Building Regulations? (See section 5)

Due to the nature of the proposed development, and the relative passive design of the new MSC (primarily open to atmosphere), the opportunity for passive design measures to improve efficiency beyond Part L compliant design are limited, i.e. fabric improvements, material specifications and the like. Therefore, the focus of the development proposals has been on:

- Optimising orientation and building design to promote passive design, such as natural daylight (where possible), and natural ventilation in lieu of mechanical fan energy
- Similar approach to stair core design, to promote passive smoke ventilation
- Maximising roof areas, and the ability to provide an efficient PV array with a south facing aspect

- Improved efficiency where active building services are required, i.e. intelligent lighting, smart controls and demand-controlled EV charging facilities

Q5: What measures have been/will be taken to reduce potential impacts of flooding associated with your proposed development? (See section 6)

The site is within a flood zone 1, and there the risk of flooding due to rivers/reservoirs etc is low. The risk of flooding on site due to rainwater is mitigated through the use of a Surface Water below ground network that collects rainwater from gullies in the landscaping at low points, and from rainwater on the roof.

Q6: What measures have been/will be taken to reduce water stress associated with your proposed development? (e.g. Water retention and minimisation measures) (See sections 7 and 8)

The hierarchy of SUDS is being followed. Unfortunately due to the ground conditions soakaways are not feasible, and there are no usable nearby watercourses. Therefore the drainage has to discharge into the local Yorkshire Water network. The flow rate of the discharge is restricted to lower existing through use of an attenuation tank to store water on site at times of heavy rain, and slowly discharge this water into the sewer.

Q7: What measures have been/will be taken to provide biodiversity net gains? (See section 8)

The introduction of trees, ornamental planting and species-rich grassland will enhance biodiversity and ecological value across the site. Native tree species will be incorporated where practicable, alongside climate-resilient species selected for their ecological benefits, long-term resilience and contribution to landscape character. Planting will be selected to provide seasonal interest, increase habitat diversity and deliver year-round ecological benefits.

Off-site mitigation will be required to achieve the statutory 10% Biodiversity Net Gain and satisfy the biodiversity trading rules. This will be secured through the purchase of biodiversity units from an approved habitat bank.

Please refer to the Ecologist's information for further details regarding Biodiversity Net Gain.

Q8: What measures have been/will be taken to reduce air pollution associated with your proposed development? (See section 9)

The multi-storey car park forms an integral part of the University of Huddersfield's wider Transport and Parking Strategy and Travel Plan, through which the University is seeking to reduce the environmental impacts associated with travel to and between its campuses.

The multi-storey carpark is therefore intended to operate as more than a conventional multi-storey car park. It will function as a mobility hub, consolidating parking provision while supporting the transition towards lower-emission vehicles and providing infrastructure that facilitates more sustainable travel choices.

Measures incorporated within the multi-storey car park and the University's wider transport strategy that will contribute towards reducing transport-related emissions and associated air pollution include:

- Provision of 59 active EV charging outlets at opening, representing approximately 10% of the proposed parking capacity, together with infrastructure designed to facilitate future expansion of EV charging as demand increases;
- Smart and dynamically managed EV charging infrastructure, with the ability to integrate with the proposed building-mounted photovoltaic generation and future energy-management technologies;
- Provision of secure cycle parking, cycle facilities and a repair station, supporting increased levels of cycling and active travel;
- Development of the multi-storey car park as a mobility hub, providing opportunities to improve integration between parking, walking, cycling, public transport and future shared-mobility services;
- Implementation of the University's Travel Plan, which seeks to reduce reliance on single-occupancy car travel and increase the proportion of journeys undertaken by walking, cycling, public transport and car sharing;
- Improved walking and cycling connections between the National Health Innovation Campus, Queensgate Campus and Huddersfield town centre, reducing the need for short vehicle journeys between university locations;
- Parking demand-management measures, including a move towards needs-based permit allocation, flexible Pay-as-You-Go parking and emissions-based charging, intended to influence both travel behaviour and the environmental performance of vehicles travelling to the University; and
- Continued monitoring of travel patterns through the Travel Plan, enabling the University to measure changes in mode share and respond with further sustainable transport interventions where required.

These measures form part of a coordinated approach in which parking provision is managed alongside investment in sustainable transport rather than being considered in isolation. The multi-storey car park consequently provides the infrastructure necessary to accommodate essential vehicle journeys whilst supporting a progressive reduction in dependence on higher-emission private car travel.

These measures will help to mitigate transport-related emissions associated with the development by supporting modal shift, managing car travel demand and facilitating the transition towards lower and zero-emission vehicles.