

of the week. There will be spaces and places suitable for all, in the landscape and inside the buildings including:

- 2.463 hectares of open space created ~~within 2.7 hectares of wider landscape;~~
- ~~A community garden; and~~
- ~~Up to 5.9 sqm of open space per employee on site.~~

5. A well connected place

4.9 The Proposed Development has been designed to prioritise pedestrian, cycle and public transport access including:

- ~~30~~ 24% increase in cycle mode share;
- ~~80~~ 60% reduction in car mode share; ~~and~~
- 74% increase in sustainable modes of travel; and
- 9% increase in walking mode share.
- ~~Reduced weekday peak flow for car trips on local highways network.~~

6. A place of opportunity

4.10 The Proposed Development will create a range of new jobs close to the city centre across a variety of sectors including life sciences, research and development, administration, leisure and retail. A total of 6,450 jobs will be directly created by the completed Development.

- ~~986 low-skilled jobs;~~
- ~~1,275 mid-skilled jobs; and~~
- ~~4,448 high-skilled jobs.~~

The Illustrative Masterplan

4.11 An illustrative masterplan as shown in **Figure 4.1A** has been developed to show how the vision, as set out above, could be achieved.

Masterplan Components

Beehive Greenway and Character Areas

4.12 The Site is organised around a single central space known as Beehive Greenway, and connects to four character areas which are:

- ~~**Abbey Walk** – would be the sole vehicle entry road, and will include a cycle path, new tree planting and three new workplace buildings.~~
- ~~**Creative Exchange** – is the centre of the proposal where five routes across the Site converge upon a public square surrounded by mixed use units and entrances to the new workplace buildings. It is expected that this space will be bounded to the south by the Community Pavilion.~~
- ~~**Garden Square North** – will sit to the south of the Community Pavilion and has a higher proportion of hard landscaping as this would be used for hosting community events.~~
- ~~**Garden Square South** – the southern portion of Garden Square South would include the creation of a wetland space. The wetland would perform a dual function of attenuating water runoff and providing a new habitat type on site, thereby contributing to biodiversity net gain.~~

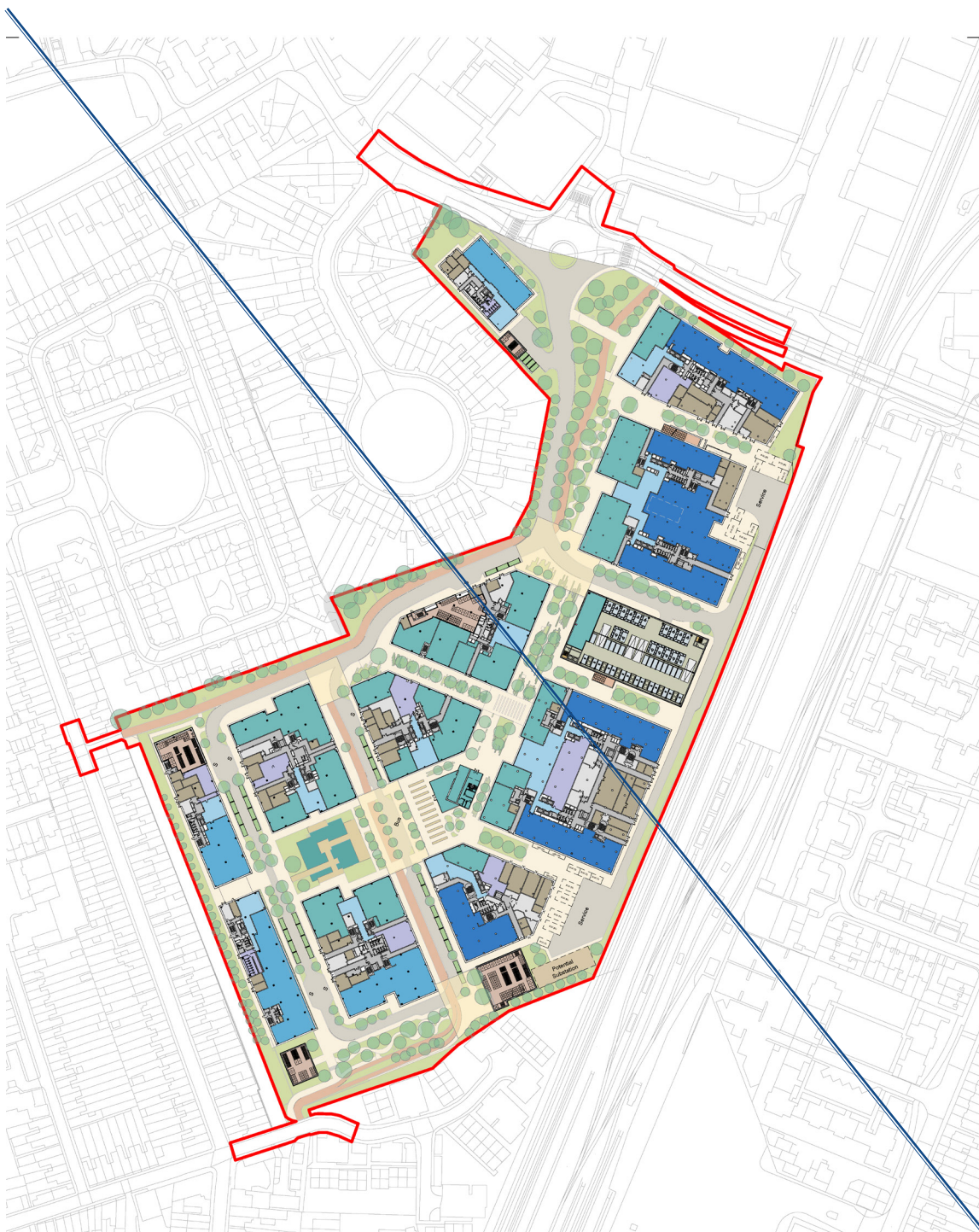


Figure 4.1: Proposed Masterplan



Figure 4.1A: Proposed Masterplan

4.13 ~~Beehive Greenway is also supported by two additional character areas which connect the southern site entrances to the centre of the Site. These are known as Hive Lane and Vera's Garden. Hive Lane is the new local high street that connects York Street to the centre of the masterplan. At the southern end, this space includes a one-way vehicle route, pedestrian routes and a new cycle path which provides connections to Cambridge Retail Park and to the north of the city.~~

4.14 ~~Vera's Garden will be the entry point into the Site from Sleaford Street. The new green space is c.90m in length and will include a community garden including vegetable beds.~~

Building Plots and Heights

4.15 There are ~~ten~~ ~~eleven~~ primary building plots, each with varying footprints across the masterplan. In terms of height, typically buildings adjacent to neighbouring residential plots are lower and feature steps in height so that the impact on the neighbouring properties is minimised. The Building Heights Parameter plan in **Appendix 4.1A** shows the indicative location of fume extract flues on four of the buildings (~~plots 2, 3 5 & 6 C, D F and G~~). The maximum height of the flues are to be up to an additional 25% of the host building and the number of flues at each location will be determined at reserved matters stage. ~~The tallest building is 35.7m (measured from ground floor level, excluding flues but including all other rooftop plant and PV). The building heights for each plot are as follows:~~

- Plot 1: 3 storeys, 15.9m
- Plot 2: 5 storeys, 25.4m
- Plot 3: 4 storeys, 20.7m
- Plot 4: 6 storeys, 30.1m
- Plot 5: 7 storeys, 35.7m
- Plot 6: 6 storeys, 31.0m
- Plot 7: 6 storeys, 28.7m
- Plot 8: 6 storeys, 28.7m
- Plot 9: 7 storeys, 32.9m
- Plot 10: 8 storeys, 25.1m

4.16 Across the ~~eleven~~ ~~ten~~ plots, once completed, the Proposed Development is expected to provide a total of up to 166,685 sqm GEA and 157,670 sqm GIA of building floorspace, broken down by plots/blocks as set out in ~~will provide a total of 148,327 sqm GEA compared to the existing site which currently provides 24,382 sqm GEA. A breakdown of the floor space (NIA) per block is shown in Table 4.1A.~~

~~Table 4.1 Proposed Development Area Schedule~~

BLOCK	USE	TOTAL GEA (SQM)	TOTAL GIA (SQM)
A	Office	2,336	2,124
C	Office	15,074	14,223
D	Office	17,290	16,406

BLOCK	USE	TOTAL GEA (SQM)	TOTAL GIA (SQM)
F	Office	36,07	31,870
G	Office	12,570	11,789
H	Office	13,114	12,295
IJ	Office	10,611	9,721
K	Office	12,708	11,995
L	Office	14,391	13,500
M	Office	13,241	12,403
N	Events / Community	612	535
3	Commercial Active Use	301	284
Total	-	148,327	137,145

Table 4.1A: Proposed Development Area Schedule

BLOCK	USE	TOTAL GEA (SQM)	TOTAL GIA (SQM)
1	Office	2,422	2,201
2	Lab	18,685	17,703
3	Lab	17,926	17,030
4	Office	13,155	12,323
5	Lab	31,122	29,777
6	Lab Office	15,683	14,725
7	Office	19,872	18,892
8	Office	17,171	16,227
9	Office	13,701	12,831
10	MSCP (Retail & Community)	16,948	15,961
Total	-	166,685	157,670

4.17 The figures shown in **Table 4.1A** above are maximum total floorspaces and include basements, full plant floors and cycle parking located within buildings. When these are deducted, a maximum functional floorspace of 93,757 sqm GIA is applied (based on 88,579 sqm GIA office + 5,178 sqm GIA mixed use), which has been used in the assessments within this ES addendum.

4.18 The illustrative masterplan includes for a mix of office and laboratory space within the commercial floorspace (85,431 sqm GIA office/lab + 5,178 sqm GIA mixed use). The inclusion of laboratory space reduces the total functional floorspace figure to 90,609 sqm GIA.

Local Centre

4.19 A new local centre at the ground floor is proposed. An illustrative mix of uses is provided within the masterplan, but the final mix will be determined at reserved matters stage. Of the ten blocks within the masterplan, seven blocks will include active local centre uses at ground floor level. Extending to 5,178 sqm GIA of active mixed-use floorspace, the local centre will include around 17 units of a range of sizes.

Vehicular Access

4.20 The main access into the Site for vehicles will remain from the existing roundabout on Coldham's Lane. The access will continue to be facilitated by a roundabout; however,

improvements will be made to prioritise pedestrian and cycle safety. Each arm of the roundabout will feature dedicated crossing points for pedestrians and cyclists, ensuring their priority and convenience.

Car Parking

- 4.21 ~~A total of 460 car parking spaces will be provided in the Proposed Development, of which 428 will be provided within a multi-storey car park (which includes accessible and general parking) and 32 accessible spaces will be provided at grade. This is an overall reduction of 425 spaces compared to the existing retail park. There are currently 885 existing car parking spaces on site. The Proposed Development will include a total of 395 car parking spaces. The majority of these spaces, 374 in total, will be located within a Multi-Storey Car Park (MSCP). The MSCP will include 317 standard parking spaces, 38 accessible spaces and 19 Rapid Electric Vehicle (EV) charging spaces.~~

Buses

- 4.22 There is an existing bus stop on site, and this will be re-provided within the Proposed Development along the one-way loop.

Pedestrians

- 4.23 Pedestrian access would be from the following entrance points: Coldham's Lane, St Matthews Gardens, York Street and Sleaford Street. The Proposed Development will improve these pedestrian access points by including wider sidewalks, well defined pedestrian crossings as well as pedestrian friendly streetscapes.

Cycling

- 4.24 A total of ~~4,269~~ **4,593** cycle parking spaces are included as part of the Proposed Development and each block will include facilities for cyclists and other non-car commuters including showers and changing rooms. The provision will adhere to a ratio of one shower/changing room per 25 cycle parking spaces and one locker per cycle parking space.

Landscape and Public Realm

- 4.25 The Proposed Development will provide ~~2.463~~ hectares of open space created. ~~within 2.7 hectares of wider landscape;~~
- 4.26 The illustrative masterplan has been split into five key landscape character areas as described below.

~~Abbey Walk~~

- 4.27 ~~Abbey Walk is located to the north of the Site and would provide 7,795sqm of which 3,654sqm is soft landscaping.~~

~~Creative Exchange~~

- 4.28 ~~Creative Exchange is the link between Abbey Walk and Garden Square. This would be a car free space. The total area within the Creative Exchange is 2,460sqm of which 530sqm is proposed to be soft planting.~~

~~Garden Square~~

- 4.29 ~~Garden square is the largest area of open space in the proposed masterplan. A large variety of spaces are proposed such as communal lawns, meadows and decking areas. The total area of the Garden square is 4,815sqm of which 1,364sqm is soft planting (excluding roof tops).~~

- 4.30 ~~Garden Square is split into two areas. Garden Square North is a 41m long X 14m wide flexible plaza, and Garden Square South is a 25m long X 22m wide wetland and would provide 420sqm of flood capacity at upstream level.~~

~~Vera's Garden~~

- 4.31 ~~Vera's Garden (69m long X 30m wide) would provide 42.5% of soft landscaping space:- 4,064sqm total area from which 1,728sqm is soft planting (excluding green roofs). Existing trees are to be retained to maintain a green boundary with neighbouring residents.~~

~~Linear Walks~~

- 4.32 ~~The Linear Walks are the east – west active streets linking to the landscape character areas. This will provide 7,680sqm of landscaping, of which 2,318sqm is soft planting (excluding green roofs).~~

~~Abbey Grove~~

- 4.33 ~~Abbey Grove is the main entrance into the site from the north. It includes tree planting, usable outdoor spaces, seating areas and species rich planting areas. This area is also proposed for outdoor social use.~~

~~Garden Walk~~

- 4.34 ~~Garden Walk is a linear green space connecting the woodland area of Abbey Grove with the larger public open spaces of Maple Square and Hive Park to the south. It is part of Beehive Greenway, which includes dedicated cycle lanes lined with rain gardens, pedestrian crossing points, the retention of existing trees, and planting of new trees.~~

~~Maple Square~~

- 4.35 ~~Maple Square is the main open civic square with the ability to host community events. Existing trees will be retained and complimented by new tree planting and rain gardens~~

~~Hive Park~~

- 4.36 ~~Hive Park is located at the southern entrance corner of the site and will provide a space that includes swales with low bridges, wildflower meadow planting, retention of existing birch trees, and benches for outdoor working.~~

~~The Lanes~~

- 4.37 ~~The Lanes connects York Street and St Matthews Gardens directly to the Centre of the site. These linear spaces will include planting and trees, whilst facilitating pedestrian and cyclist movement.~~

Biodiversity Net Gain

- 4.38 The existing baseline of the Site holds very limited ecological value. The proposals include a variety of measures to ensure that a net gain in biodiversity is achieved on site. These include:
- Improvements on the Site boundary to preserve and protect the existing green areas.
 - Where losses to habitats are required, these will be more than off-set for through the emerging landscape designs. This will be achieved through the provision of new areas of species-rich grassland, tree and scrub planting ~~and the proposed wetland area.~~
 - Significant areas of green and blue roof space.

- Non-native amenity species will be kept to a minimum.
- Native berry or nut bearing species.

4.39 Overall, the Proposed Development is targeting a 100% biodiversity net gain improvement on site.

Drainage Strategy

4.40 A site-specific Flood Risk Assessment (FRA) has been undertaken for the Proposed Development. The FRA has been prepared in accordance with the National Planning Policy Framework (NPPF) and the associated technical guidance and, as such, it has identified and assessed the risks of all sources of flooding to and from the development and demonstrates how these flood risks will be managed so that the development remains safe for its lifetime, taking climate change into account.

Green Roof / Blue Roof Areas & Attenuation Storage

4.41 Provision has been made for the integration of extensive areas of blue roof attenuation storage on selected buildings, in tandem with green roof coverage where practical considerations allow. Green roof areas will also be provided on selected roof canopies and cycle storage sheds where permissible. Below ground attenuation storage is proposed beneath external hardstanding areas and service yards towards the northern portion of the Proposed Development to control and utilise runoff from the lower (northern) drainage catchment, working in tandem with green and blue roof attenuation and upper catchment SUDs features.

4.42 The proposals now incorporate water features to enhance the landscape and manage drainage. A shallow natural pond has been added near the entrance of St. Matthew's Gardens, while the southern park area will feature swales and bioretention systems.

Rainwater Harvesting & External Re-Use

4.43 Rainwater will be captured from selected appropriate building roof areas for filtration and re-use for irrigation of soft landscaping within the public realm areas. Additional rain gardens along the Beehive Greenway and cycle paths are proposed.

Sustainability

4.44 A Sustainability Strategy has been prepared as part of the planning application which outlines the sustainability benefits and values that the Proposed Development can bring to the Site, local community, surrounding businesses and future building users.

4.45 The Proposed Development is targeting 5 BREEAM Wat01 credits for water consumption and will also be targeting the additional Exemplary Performance credit. This will be achieved through a combination of low flow outlets and rainwater recycling. Furthermore, a BREEAM score of 85% for all office and lab buildings will be achieved.

Construction Methods, Environmental Mitigation and Monitoring

4.46 An outline CEMP has been prepared and updated (July 2024) in support of the planning application and is appended to the ES in **Appendix 4.2A**. The CEMP is an iterative document which will be updated as the construction proposals mature and will incorporate any necessary planning condition requirements.

Overview

4.47 The hours of work on the Proposed Development will be in line with CCC's guidelines and requirements. Standard working hours are expected and include:

- 07:00 hours to 18:00 hours Mondays to Fridays; and
- 07:00 hours to 13:00 hours on Saturdays.

Transport

4.48 The CEMP outlines mitigation measures to avoid nuisance to the public that may arise from increases in traffic flows and temporary rearrangements of the road network associated with the construction works. A Traffic Management Plan will be implemented on site and will be included within the CEMP. The TMP plan will outline the routes and timings of deliveries to be taken by hauliers to minimise disruption to local residents and businesses. In addition to containing information in respect of predicted traffic numbers throughout the duration of the project, as well as clearly demonstrating how traffic and deliveries will be managed to mitigate the impact on the Environment.

4.49 In order to reduce the number of vehicles attending the Site the Principal Contractor will target the following best practice suggestions:

- Procurement of local sub-contractors and labour.
- Procurement of local suppliers.
- Combined deliveries.
- Install a delivery regime of "just in time". Use of off-site storage hubs if available.
- Cycle parking on-site for development operatives. Encourage/reward car sharing.
- Encourage the use of public transport, timetable and routes should be available to all operatives at the Site.
- Site meetings should be timetabled for after peak hours or utilisation of video conferencing such as Zoom or Microsoft Teams.

Waste

4.50 The CEMP outlines ways to minimise construction waste including waste prevention and reduction, re-use and recycling. The final CEMP will include a resources management plan which will outline measures to monitor the Proposed Development's generation of non-hazardous waste and diversion of waste from landfill. Furthermore, once the Principal contractor is appointed, a Waste Management Plan will be generated which will adopt the principles set out in the CEMP.

Noise and Vibration

4.51 Construction noise will be minimised in accordance with Best Practice Mean such as:

- Noise emission limits for equipment brought to site.
- Use of acoustic screens.
- Control of working hours.
- Noise monitoring on site.

4.52 In addition to the above, the Principal Contractor will ensure compliance with the recommendations set out in BS5228:2009 and in particular with the following requirements:

- Vehicles and mechanical plant will be maintained in a good and effective working order and operated in a manner to minimise noise emissions.
- HGV and site vehicles will be equipped with broadband, non-tonal reversing alarms.
- Compressor, generator, and engine compartment doors will be kept closed and plant turned off when not in use.
- All pneumatic tools will be fitted with silencers/mufflers.
- Restrict the number of plant items in use at any one time.
- Plant maintenance operations will be undertaken at a distance from noise sensitive receptors.
- Reduce the speed of vehicle movements.
- Ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise sensitive receptors.

4.53 Vibration is a particular risk during the piling and excavation stages. The measures taken to reduce the acoustics of these two operations will also assist in mitigating the effects of vibration on neighbours and their property. Specific measures required include but are not limited to:

- A digital seismograph measuring device will be used to measure the amount of vibration produced during the works. Where elevated levels are recorded the source will be investigated and, where possible, alternative techniques employed to reduce the levels.
- The Contractor will comply with the vibration levels established by agreement with CCC, which will consider BS 5228-2.
- The potential requirement for vibration monitoring will be assessed in line with BS 5228-1:2009+A1:2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites'.
- Where vibration monitoring is required measured vibration levels shall be compared with the criteria in BS 5228:2009 Part 2 (i.e., 1mms-1 PPV for potential disturbance in residential areas and using a suggested trigger criteria of 2mms-1 for commercial areas). Lower limits will be confirmed with Cambridge City Council if there is a risk of vibration levels interfering with vibration sensitive equipment or other vibration sensitive objects.

Air Quality

4.54 The CEMP outlines ways to control dust and particulate matter from the construction phase. Such measures include:

- Erect solid screens or barriers around dusty activities or the Site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site.
- Cover, seed or fence stockpiles to prevent wind whipping.
- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable.

- Impose and signpost a maximum-speed-limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas.
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the Site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment.
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
- Avoid bonfires and burning of waste materials.
- Ensure effective water suppression is used during deconstruction operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.

Surface Water Management

4.55 The contractor will prepare a detailed Surface Water Management Plan and site-specific Erosion and Sediment Control Plan, which will minimise discharge of potentially polluted site water to nearby drains and overland flow routes. This will include points such as:

- No polluted water is to be discharged from the Site.
- Sediment and erosion controls are to be regularly inspected to ensure sufficient capacity.
- Wheel washes are to be implemented on site.
- Drainage of surface runoff and de-watering effluents to settling tanks to remove suspended solids prior to discharge to sewer or removal by a suitably licenced waste operator.
- Storage of chemicals and hazardous materials within bunded areas, with adequate capacity (of 110%). Bunded areas are to be regularly inspected to ensure that sufficient capacity is available.
- Prevention of spills and leaks.

Alternatives

4.56 Schedule 4 of the EIA Regulations requires that an ES should provide a description of reasonable alternatives considered by the Applicant which are relevant to the project and its specific characteristics, and an indication of the main reasons for the chosen option including a comparison of environmental effects. This is provided below.

Site Alternatives

4.57 The Beehive Centre is not performing well, with expenditure per sqm less than half the equivalent amount in the adjacent Cambridge Retail Park. By comparison, demand for employment space within Greater Cambridge is at record high levels, and there is currently a significant shortfall in available floorspace, as reported in the Cambridge Office & Laboratory

Occupational Market Update prepared by Bidwells and submitted in support of the planning application. Current demand is dominated by Life Science and Tech sectors, and the lack of supply of high-quality wet labs, dry labs and office floorspace is considered to be a hindrance to business growth in Cambridge. The Proposed Development will therefore help to alleviate some of the acute supply shortages in Cambridge.

- 4.58 When considering the points above, no alternative sites have been considered by the Applicant because as described above, the existing site is underperforming, therefore it would be sensible to redevelop the Site into a new life science and innovation park which would provide much needed office and laboratory space within Cambridge.

Masterplan Evolution

- 4.59 The masterplan has undergone significant design development since the initial pre-application consultation in 2021. This has been influenced by the TVIA and heritage assessments and through a series of workshops with planning officers, Historic England, and the public. Feedback on the scheme has been taken on board and resulted in the final scheme that forms this outline application.

- 4.60 The following section highlights the key changes that were made to the design of the Proposed Development.

2021 - Initial Pre-Application

- 4.61 The first iteration of the Proposed Development was submitted through a series of three pre-application sessions over the course of 2021 that covered the principles of the development, ground floor activation and townscape, with an initial response provided by officers that would inform the initial stages of the design development throughout 2022. This can be seen in **Figure 4.2A**.



Figure 4.2A: Proposed Design at Pre-application 2021 February 2022

4.62 The following changes were made following Pre-application 1:

Plan Changes

- Plot D was rotated to create skyline gap between C and D in east-west views.
- Plot G was extended towards Plot F to allow greater change at upper levels.

Massing Changes

- Plot F & G: Upper level setbacks were increased for the benefit of York Street and Mill Road Bridge viewpoints.
- Plot H: Increase depth of setback was increased for the benefit of York Street viewpoint.
- Plot M: Upper Levels were re-profiled in order to improve quality of space adjacent to Silverwood close Boundary.

4.63 The above changes are shown in **Figure 4.3A** which subsequently reduced visual impacts at the adjacent Conservation Area as well as at York Street and Mill Road Bridge.

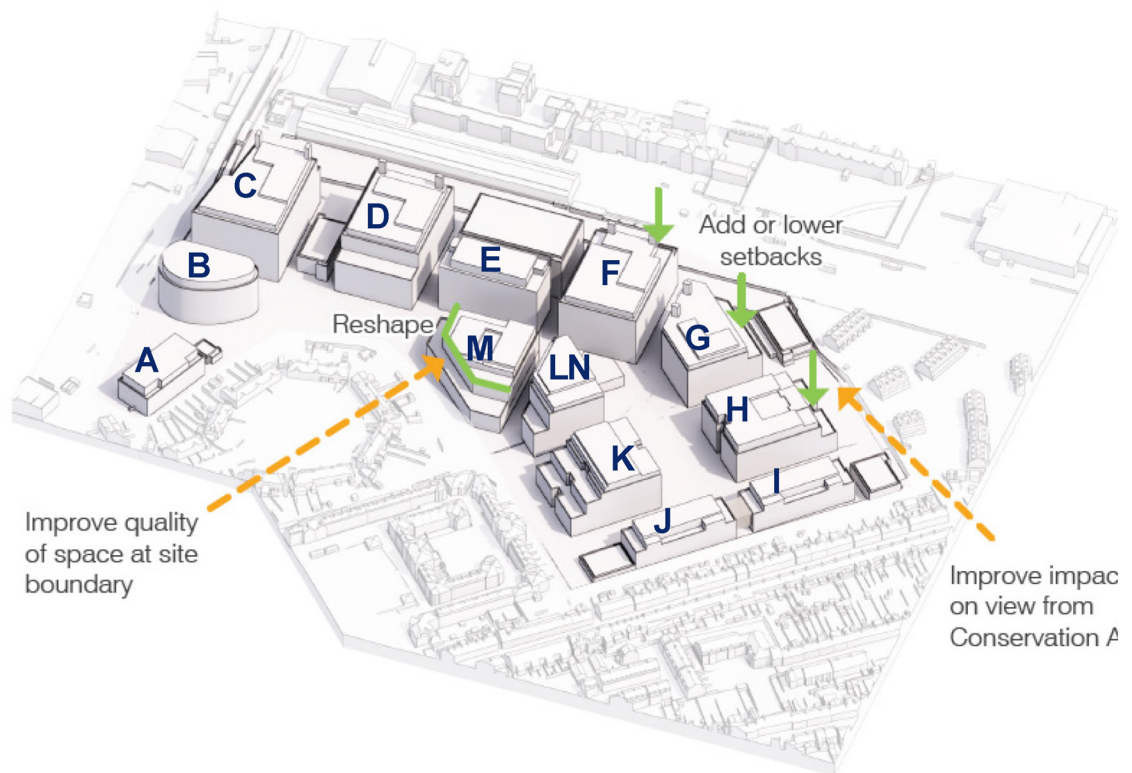


Figure 4.3A: Proposed Design at February 2022

May 2022

Plan Changes

- Plot B was removed in order to preserve and improve the important green space adjacent to Coldham's Lane roundabout.
- Plot E was rotated 90 degrees and paired with Plot 3 to add another massing break to the skyline in east-west views.

Massing Changes

- Plot C: Upper levels were sculpted to mitigate footprint increase.
- Plots F, G & H: building heights were reduced by 1 storey for the benefit of York Street and Mill Road Bridge viewpoints.

4.64 The above changes are shown in **Figure 4.4A**. The reduction in height at plots F, G & H reduced the potential for visual impacts again at York Street and Mill Road Bridge.

June 2022

4.65 Following a pre-application meeting with the Design Review Panel and Historic England, the following changes were made:



Figure 4.4A: Proposed Design at May 2022

Plan Changes

- Plot A: Plan area decreased to avoid conflict with all but one TPO tree.
- Plot C: Building footprint area was reduced and form was refined.
- Plot D: Building footprint was increased and divided into 'paired buildings' form.
- Plot E: was removed in favour of revised Plot F.
- Plot F: Building footprint was increased and divided into 'paired buildings' form.
- Plots H & K: a massing break was introduced to the north and south facades to create building elements with reduced scale.
- Plot I & J: were realigned to increase the gap from Rope Walk boundary.

Massing Changes

- Plot C: the width was reduced to create more slender form in east west views.
- Plot D: Spilt form and vary heights of each element.
- Plot F: Spilt form and vary heights of each element by reducing height of southern element.
- Plot K: height was reduced by one storey.
- Plot L: height was reduced by one storey.

4.66

The above changes are shown in **Figure 4.5A**. The reduction in height in the southern part of the site reduced the potential for visual impacts.

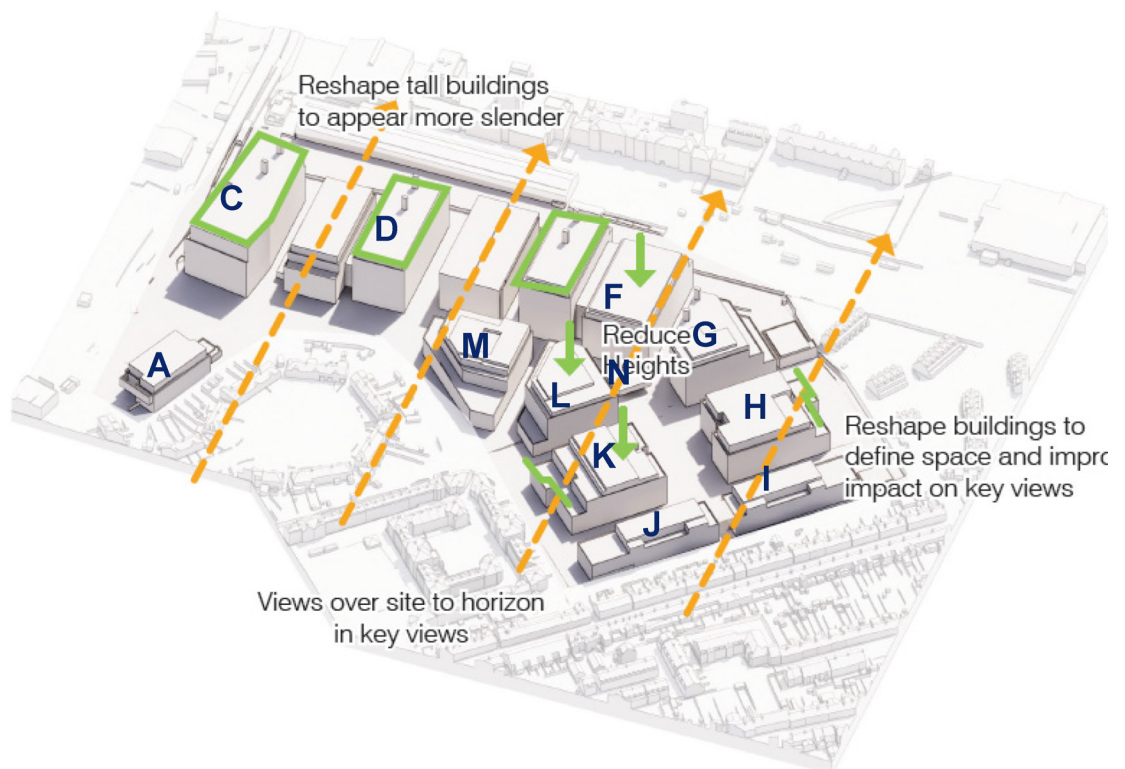


Figure 4.5A: Proposed Design at June 2022

September 2022

- 4.67 Following a combined heritage workshop and pre-app design review, the following changes were made:

Plan Changes

- 4.68 Plot F: Building footprint was amended to increase central 'gap' between paired building volumes.

Massing Changes

- 4.69 The following height reductions were undertaken to reduce maximum height of the Proposed Development and improve impact and relationship with skyline and key heritage assets, thereby reducing the potential for heritage and townscape/visual impacts.

- Plot C: Reduction in height by 2 storeys.
- Plot D: Reduction in height by 1 storey.
- Plot F: Reduction in height by 2 storeys.
- Plot 3: Reduction in height by 1 storey.

- 4.70 The above changes are shown in **Figure 4.6A**.

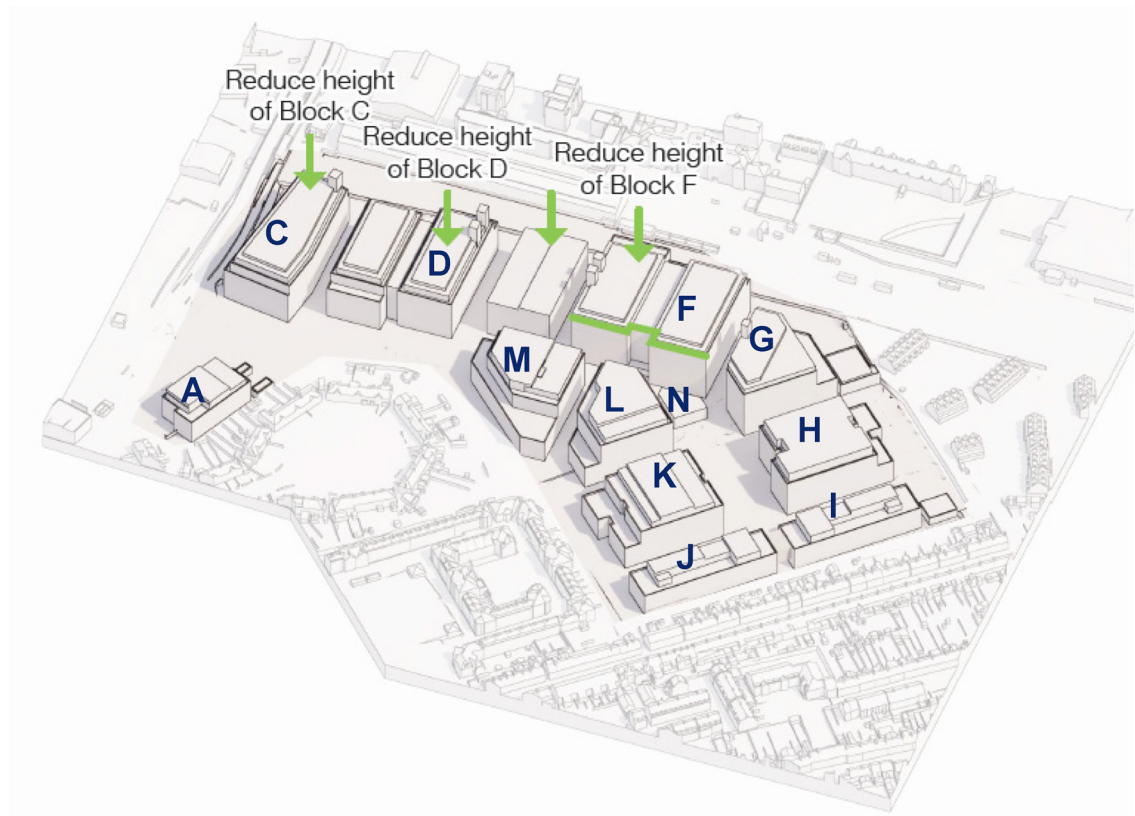


Figure 4.6A: Proposed Design at September 2022

February 2023

- 4.71 Following a live massing workshop with planning officers, a new approach to skyline form was explored which prioritised a more varied form, reduced impact on Coldham's Common and limited points of height visible in long distance views. This reduced the potential for visual impacts at sensitive receptors.
- 4.72 No plan changes were made but the following massing changes were included:
- Plot A: Reduction in height by 1 storey.
 - Plot C: Reduction in height by 1 storey.
 - Plot D: Reduction in height by 2 storeys.
 - Plot F: Height of building was increased by 1 storey.
 - Plot G: Height of building was increased by 2 storeys.
 - Plot H: Reduction in height by 1 storey.
- 4.73 The above changes are shown in **Figure 4.7A**.

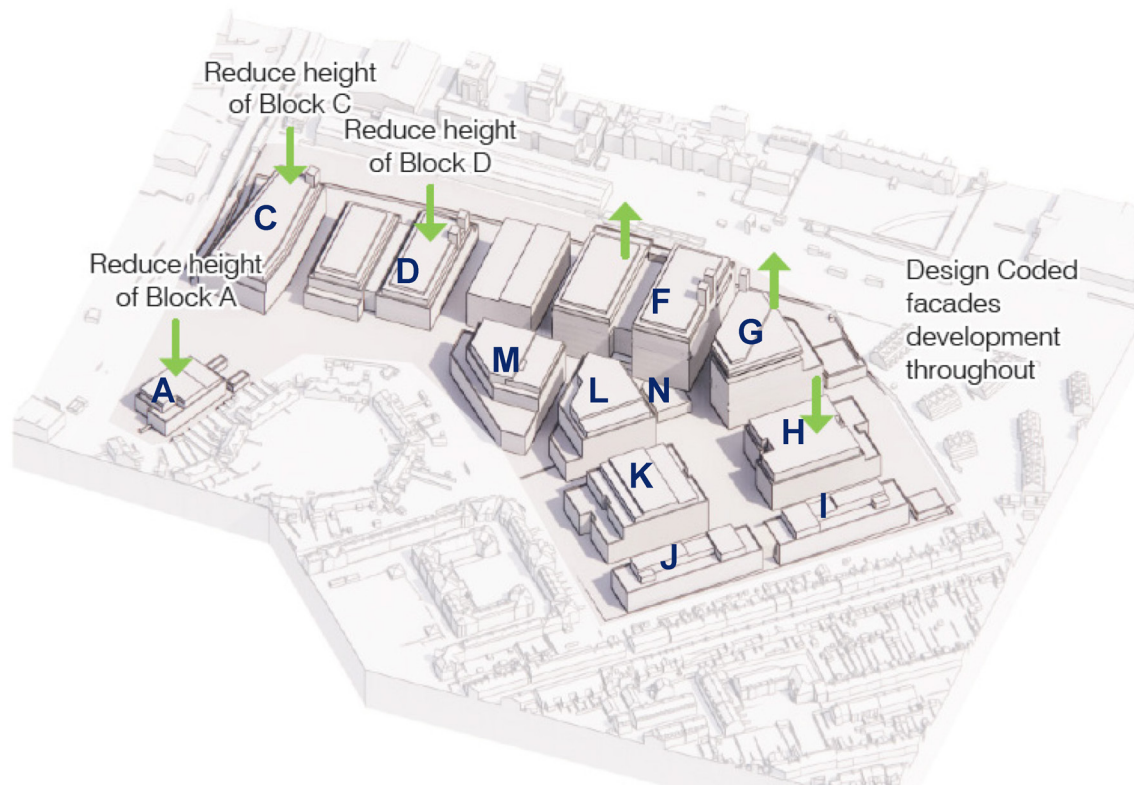


Figure 4.7A: Proposed Design at February 2023

- 4.74 Following the output of the massing workshop it was agreed that while there was some merit in the proposed skyline reshaping, the maximum height of the Proposed Development and wider impact that carried was too great. The final iteration of the Proposed Development aimed to keep the best elements of the workshop while reducing the overall visual impact.
- 4.75 No plan changes were made but the following massing changes were included:
- Plot C: building height was increased by 1 storey.
 - Plot F: building height was increased by 1 storey and the footprint of the final floor was significantly reduced.
 - Plot G: Reduction in height by 2 storeys.
 - Plot H: building height was increased 1 storey.
 - Plot L: building height was increased by 1 storey.
- 4.76 The above changes are shown in **Figure 4.8A**.



Figure 4.8A: ~~Final Stage~~ Planning Application Submission Version of the Masterplan Evolution

Masterplan Evolution – March 2024

4.77

Following consultee, community and officer comments on the submitted scheme, a period of revised design commenced that involved responding to comments regarding the nature of Coldham's Lane junction, movement framework, public space framework, skyline and townscape and mix of uses. The following plot changes were made:

- Plot 1: Footprint amended to move building away from Silverwood Close and create a more positive Coldham's Lane frontage.
- Plot 2: Footprint amended to better signify the entrance to the site
- Plot 3: Colonnade introduced to the south-west corner enabling easier movement and visual connection.
- Plot 4: Change of use to an office from MSCP.
- Plot 5: No change.
- Plot 6: 3 storey wing added to improve urban containment of Hive Park with a colonnade to enable a more legible connection.
- Plot 7: Separation from the omitted Plot J.
- Plot 8: New building format created that addresses both Hive Park and Maple Square and enables the centralised direct cycle route.
- Plot 9: New building format created that increases separation to the residential boundaries.
- Plot 10: Colonnade added to enhance connection to Maple Square.
- Plot 11: Change in use to MSCP with reduced footprint and height, improving relationship with Silverwood Close.

Massing Changes

4.78 In addition to the plot changes above, the following height reductions were undertaken to reduce maximum height of the Proposed Development and improve impact and relationship with skyline and key heritage assets, thereby reducing the potential for heritage and townscape/visual impacts.

- Plot 5: Reduced height by 1 storey.
- Plot 6: Reduced height by 1 storey.
- Plot 7: Commitment to tighter parameters at roof level.
- Plot 8: New building format reduces height adjacent to Rope Walk boundary by moving plant to the roof of the taller element towards the centre of the site
- Plot 10: Reduced height by 1 storey.

4.79 These changes are shown in **Figure 4.9A**.

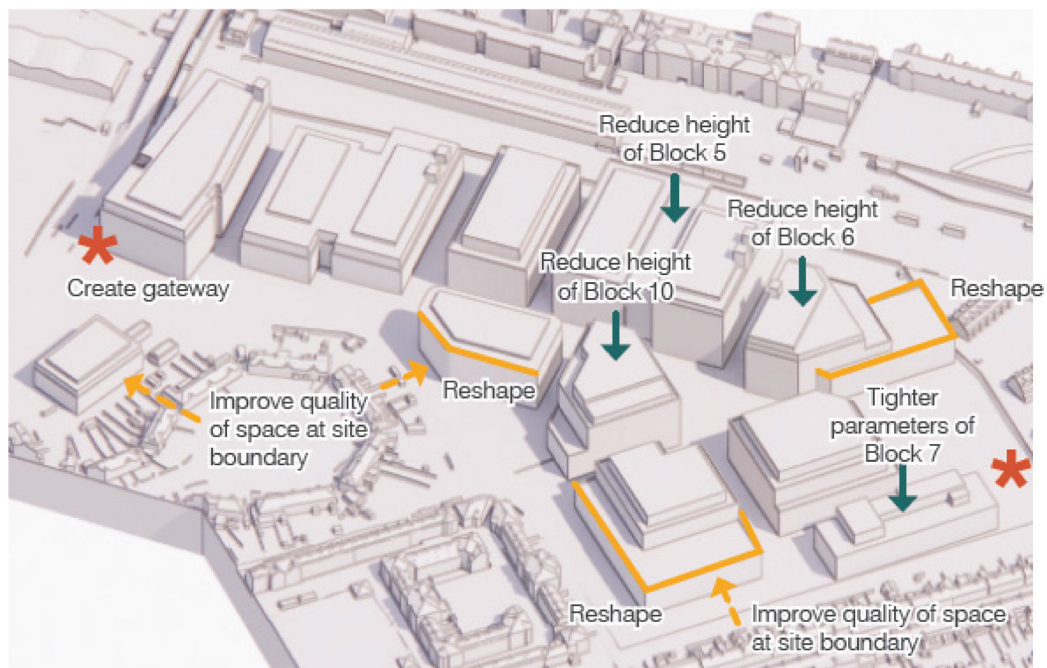


Figure 4.9A: Proposed Design Changes, March 2024.

4.80 At pre-application 2 in May 2024, further refinements of the masterplan were explored to address the centralised cycle route and highways routes to ensure a balance between directness and simplicity of travel. The massing changes focused on refining the silhouette of Plots 2 to 5 from Coldhams Common and the appearance of bulk, especially Plot 2, from Castle Hill Mound. The following changes to the plots were made:

- Plot 1: Revised to create a larger footprint that enables reduced massing at upper levels.
- Plot 2: Footprint changes that reflect the massing changes.

4.81 Refinements to the massing were also made as detailed below:

- Plot 1: setback to 1st and 2nd floors to improve sense of openness at Silverwood Close.
- Plot 2: Develop massing and materiality strategy to reduce and break down bulk in long

distance views with particular focus on creating a more slender silhouette when viewed from Caste Hill Mound.

- Plot 4 & 5: Refinements to the roofscape to resolve the length and horizontality of their combined silhouette.
- Plot 7: Revisit the parameters to reduce impact and enhance boundary conditions.

4.82 These design changes are presented in **Figure 4.10A**.

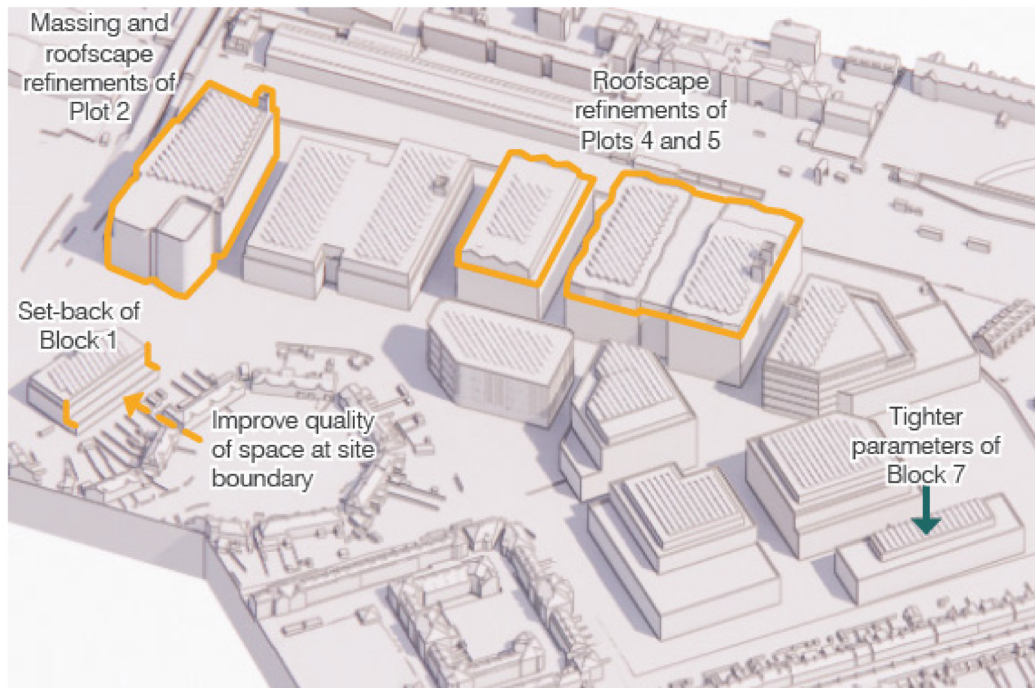


Figure 4.10A: Design Changes, May 2024 (pre-application 2)

4.83 At pre-application 3, there was a focus on the composition of plots 2 to 5 in order to create greater variation in the roofscape of these plots. Additionally, Plots 7 and 8 were combined to improve the boundary conditions, increase the size of the park and reduce the impact to York Street residents.

4.84 The following changes were made to the plots:

- Plot 2: Footprint changes to enable the removal of 1 storey.
- Plot 3: Minor relocation to enable the change in footprint of Plot 2 - no change to footprint size or form.
- Plot 4: Footprint minor adjustment to accommodate for massing changes.
- Plot 5: Footprint minor adjustment to accommodate for massing changes.
- Plot 7: Separation from the omitted Plot 7

4.85 In terms of massing changes, plot was reduced in height by 1 storey. These changes are shown in **Figure 4.11A**.

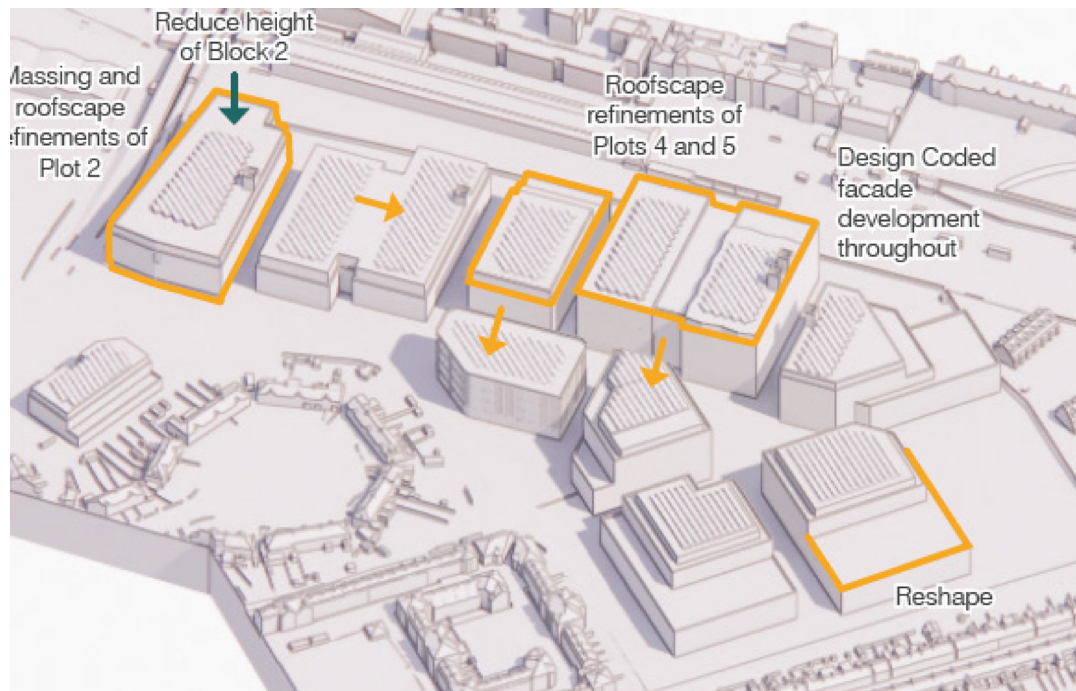


Figure 4.11A Design Changes, June 2024 (pre-application 3)

- 4.86 Between pre-application 3 and the current proposed design, the Design Code was developed to ensure the outcomes of the massing and roofscape studies were appropriately controlled.

Townscape Evolution

- 4.87 Impacts on building heights were evident as part of the consultation process. Feedback from the consultation events have informed the design codes submitted as part of the planning application and building heights were amended following the first exhibition to reduce townscape appearance and reduce the height of plots A&D at the north of the Site.

Conclusion

- 4.88 It has been demonstrated in this chapter, that the proposals have developed and evolved in response to the TVIA and heritage assessments undertaken by the consultant team and included within the ES, but also through detailed engagement with statutory consultees and Planning Officers as part of the masterplan process. The Applicant and their design team consider this is the most appropriate solution to meet the development requirements identified, after having regard to those environmental assessments and engagement with stakeholders to provide the best quality solution for the Proposed Development.
- 4.89 The next chapter of this ES sets out the planning policy context, insofar as it relates to the Proposed Development.

Planning Policy Context

5

5.0 Planning Policy Context

- 5.1 Chapter 5 of the submitted ES dated August 2023 remains valid but should be read in additional to the following text.
- 5.2 The following text supersedes paragraph 5.4 of the Original ES:
- The National Planning Policy Framework ('the Framework' or 'NPPF') represents up-to-date Government planning policy and is a material consideration that must be taken into account where it is relevant to a planning application or appeal. This includes the presumption in favour of development found at paragraph 14 of the Framework.

Air Quality

6

6.0 Air Quality

Introduction

- 6.1 This chapter addresses the air quality impacts of the Proposed Development. It has been prepared by Waterman Infrastructure and Environment to assess the impacts of the Proposed Development in relation to the effects it would have on the local air quality.
- 6.2 This chapter is supported by the following appendices:
- **Appendix 6.1A:** Summary of Relevant Legislation, Planning Policy and Guidance

Potential Impacts

- 6.3 This chapter assesses the following likely significant effects of the Proposed Development on the environment with respect to air quality:

Construction

- 6.4 Temporary generation of dust arising from the construction works leading to potential dust nuisance to surrounding sensitive receptors; and
- 6.5 Temporary changes in traffic-related emissions during the construction works as a result of changes in traffic generated by such works / activities.

Operational Development

- 6.6 Qualitatively considers the potential air quality concentrations future uses of the Development would be exposed to.

Methodology

- 6.7 The Air Quality Assessment was undertaken in accordance with the Scoping Opinion received from Cambridge City Council (CCC) prepared on 3 February 2023. As requested, reference was made to the following planning and supplementary advice:
- Planning Policy 36 of the Cambridge City Local Plan;
 - The Cambridge City Air Quality Action Plan;
 - Greater Cambridge Sustainable Design and Construction SPD (2020); and
 - Emerging national policy relating to PM_{2.5} and the new limit value of 10µg/m³.

Air Quality Standards and Objectives

UK Air Quality Objectives

- 6.8 The Government has established a set of air quality standards and objectives to protect human health. The current AQS was published in July 2007 and sets out the objectives for Local Planning Authorities (LPA) in undertaking their LAQM duties. The AQS objectives apply at locations where members of the public are likely to be regularly present and are likely to be exposed over the averaging period of the objective. Box 1.1 of Defra's Local Air Quality Management Technical Guidance (LAQM.TG22) explains the locations where these objectives apply.
- 6.9 The AQS objectives in relation to air pollutants relevant to this assessment are summarised in **Table 6.1A**.

Table 6.1A: National Air Quality Strategy Objectives

POLLUTANT	OBJECTIVE		DATE BY WHICH OBJECTIVE IS TO BE MET
	CONCENTRATION	MEASURED AS	
Nitrogen Dioxide (NO ₂)	200µg/m ³	1 hour mean not to be exceeded more than 18 times per year	31/12/2005
	40µg/m ³	Annual Mean	31/12/2005
Particulate Matter (PM ₁₀) ^(a)	50µg/m ³	24 hours mean not to be exceeded more than 35 times per year	31/12/2004
	40µg/m ³	Annual Mean	31/12/2004
Particulate Matter (PM _{2.5}) ^(b)	Target of 15% reduction in concentrations at urban background locations	Annual Mean	Between 2010 and 2020
	25µg/m ³	Annual Mean	01/01/2020

Notes: (a) Particulate matter with a mean aerodynamic diameter less than 10 microns (or micrometres – µm)

(b) Particulate matter with a mean aerodynamic diameter less than 2.5 microns

World Health Organization Global Air Quality Guidelines

6.10 The latest World Health Organization (WHO) Global Air Quality Guidelines were published in September 2021. The guidelines set out recommendations on air quality concentration levels (AQC) levels, together with interim targets, shown in **Table 6.2A**.

Table 6.2A: Summary of WHO AQC Levels

POLLUTANT	AVERAGING TIME	INTERIM TARGET				AQC LEVEL
		1	2	3	4	
Nitrogen Dioxide (NO ₂)	Annual	40	30	20	-	10
	24-hour ^a	120	50	-	-	24
Particulate Matter (PM ₁₀)	Annual	70	50	30	20	15
	24-hour ^a	150	100	75	50	45
Particulate Matter (PM _{2.5})	Annual	35	25	15	10	5
	24-hour ^a	75	50	37.5	25	15

Notes: ^a 99th percentile (i.e. 3–4 exceedance days per year).

6.11 The WHO recognises that while the achievement of the AQG levels should be the ultimate goal, this might be a difficult task for many countries. Therefore, gradual progress in improving air quality, marked by the achievement of interim targets, should be considered a critical indicator of improving health conditions for populations.

The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023

6.12 The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 sets the following targets:

- Annual Mean PM_{2.5} concentration in ambient air must be equal to or less than 10 µg/m³ by the end of 31st December 2040; and

- At least a 35% reduction in population exposure when compared with the average population exposure in the baseline period (1st January 2016 to 31st December 2018) by the end of 31st December 2040.

Construction Methodology

Sensitivity of Receptor

- 6.13 For the Air Quality Assessment, the sensitivity of all receptors were determined to be high. The construction assessment does not consider individual sensitive receptors. All sensitive receptors within ~~350m~~ 250m of the Application Site boundary or within 50m of the routes used by construction vehicles on the public highway up to ~~500m~~ 2500m from the entrance(s) to the Application Site have been considered.

Dust Emissions

- 6.14 The assessment of the effects from demolition and construction activities in relation to dust has been based on the IAQM's Guidance on the Assessment of Dust from Demolition and Construction, ~~2014~~2024 (IAQM Construction Guidance) and the following:
- Consideration of the Works and their phasing; and
 - A review of the sensitive uses in the area immediately surrounding the Site.
- 6.15 Following the IAQM Construction Guidance, construction works were divided into the following four distinct activities:
- Demolition – any activity involved in the removal of an existing structure (or structures). This may also be referred to as de-construction, specifically when a building is to be removed a small part at a time;
 - Earthworks – soil-stripping, ground-levelling, excavation and landscaping;
 - Construction – any activity involved with the provision of a new structure (or structures), its modification or refurbishment. A structure will include a residential dwelling, office building, retail outlet, road, etc; and
 - Trackout – the transport of dust and dirt from the construction/demolition site onto the public road network, where it may be deposited and then re-suspended by vehicles using the network. This arises when heavy duty vehicles (HDVs) leave the construction/demolition site with dusty materials, which may then spill onto the road, and/or when HDVs transfer dust and dirt onto the road having travelled over muddy ground on site.
- 6.16 IAQM Construction guidance considers the effects of dust, as follows:
- Annoyance due to dust soiling;
 - Potential effects on human health due to significant increase in exposure to PM₁₀; and
 - Harm to ecological receptors with account being taken of the sensitivity of the area that may experience these effects.
- 6.17 A summary of the four-step process, which was undertaken for the dust of construction activities as set out in the IAQM Construction guidance, is presented in **Table 6.3A**. ~~The IAQM Construction Guidance indicated that receptors within 350m of the boundary of a site, and within 50m of construction routes, would be sensitive to emissions and nuisance dust from construction activities. Following the IAQM Construction Guidance, construction activities can be divided into the following four distinct activities:~~
- ~~Demolition – any activity involved in the removal of an existing building;~~

- Earthworks—the excavation, haulage, tipping and stockpiling of material, but may also involve levelling the site and landscaping;
- Construction—any activity involved with the provision of a new structure; and
- Trackout—the movement of vehicles from unpaved ground on a site, where they can accumulate mud and dirt, onto the public road network where dust might be deposited.

6.18 The IAQM Construction Guidance considers three separate dust impacts, with the proximity of sensitive receptors being taken into consideration for:

- Annoyance due to dust soiling;
- Potential impacts on human health due to significant increase in exposure to PM_{10} ; and
- Harm to ecological receptors (any sensitive habitat affected by dust soiling).

6.19 A summary of the four-step process undertaken for the demolition and construction dust assessment, as set out in the IAQM Construction Guidance, is presented in **Table 6.3**.

Table 6.3A: Summary of the IAQM Construction Guidance for Undertaking a Construction Dust Assessment

STEP		DESCRIPTION
1	Screen the Need for a Detailed Assessment	Simple distance-based criteria are used to determine the requirement for a detailed dust assessment. An assessment will normally be required where there is: • A 'human receptor' within: - 250m of the boundary of the site; or - 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s). • An 'ecological receptor' within: - 50 m of the boundary of the site; or 50 m of the route(s) used by construction vehicles on the public highway, up to 250 m from the site entrance(s). Simple distance-based criteria are used to determine the requirement for a detailed dust assessment. An assessment would normally be required where there are 'human receptors' within 350m of the boundary of the site and/or within 50m of the route(s) used by construction vehicles on public highway, up to 500m from the site entrance or 'ecological receptors' within 50m of the boundary of the site and/or within 50m of the route(s) used by construction vehicles on public highway, up to 500m from the site entrance.

STEP		DESCRIPTION
2	Assess the Risk of Dust Impacts	The risk of dust arising in sufficient quantities to cause annoyance and/or health and/or ecological impacts should be determined using four risk categories: negligible, low, medium and high risk. A site is allocated to a risk category based on two factors: - the scale and nature of the works, which determines the potential dust emission magnitude as small, medium or large (STEP 2A); and - the sensitivity of the area to dust impacts (STEP 2B), which is defined as low, medium or high sensitivity. To determine the risk of impacts with no mitigation applied (STEP 2C), the dust emission magnitude (STEP 2A) is combined with the sensitivity of the area determined (STEP 2B). The risk of dust arising in sufficient quantities to cause annoyance and/or health or ecological impacts should be determined using three risk categories: low, medium and high based on the following factors: The scale and nature of the works, which determines the risk of dust arising (i.e., the magnitude of potential dust emissions) classed as small, medium or large; and The sensitivity of the area to dust impacts, considered separately for ecological and human receptors (i.e., the potential for effects) defined as low, medium or high.
3	Site Specific Mitigation	The dust risk categories for each of the four activities determined in STEP 2C is used to define the appropriate, site-specific, mitigation measures to be adopted. Local authorities may have a Code for Construction Practice, or equivalent document, that should be taken into account during the development of the mitigation measures. For the cases where the risk is 'negligible' no mitigation measures beyond those required by legislation are required. Determine the site-specific measures to be adopted at the site based on the risk categories determined in Step 2 for the aforementioned four activities. For the cases where the risk is 'insignificant' no mitigation measures beyond those required by legislation are required. Where a local authority has issued guidance on measures to be adopted these should be taken into account.
4	Determine Significant Effects	Once the risk of dust impacts has been determined in STEP 2C and the appropriate dust mitigation measures identified in STEP 3 the final step is to determine whether there are significant effects arising from the construction phase of a proposed development. For almost all construction activity, the aim should be to prevent significant effects on receptors through the use of effective mitigation. Experience shows that this is normally possible. Hence the residual effect will normally be 'not significant'. Following Steps 2 and 3, the significance of the potential dust effects should be determined, using professional judgement, taking into account the factors that define the sensitivity of the surrounding area and the overall pattern of potential risks.

Construction Vehicle and Plant Exhaust Emissions

6.20 The IAQM Construction Guidance on assessing construction impacts states:

“Experience of assessing the exhaust emissions from on-site plant (NRMM) and site traffic suggests that they are unlikely to make a significant impact on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed. For site plant and on-site traffic, consideration should be given to the number of plant/vehicles and their operating hours and locations to assess whether a significant effect is likely to occur. For site traffic on the public highway, if it cannot be scoped out (for example by using the EPUK’s criteria), then it should be assessed using the same methodology and significance criteria as operational traffic impacts. Experience of assessing the exhaust emissions from on-site plant (also known as non-road mobile machinery or NRMM) and site traffic suggests that they are unlikely to make a significant effect on local air quality, and in the vast majority of cases they will not need to be quantitatively assessed. For site plant and on-site traffic, consideration should be given to the number of plant/vehicles and their operating hours and locations to assess whether a significant effect is likely to occur. For site traffic on the public highway, if it cannot be scoped out, then it should be assessed using the same methodology and significance criteria as operational traffic impacts.”

6.21 For the outline application, as the construction vehicle numbers and construction phasing is indicative, it was considered that a quantitative assessment of the exhaust emissions from construction vehicle and plant exhaust emissions is not required. Accordingly, a qualitative assessment is deemed appropriate and is provided in this Chapter.

6.22 In accordance with the IAQM Construction Guidance and EPUK / IAQM Guidance, if required, the impact of construction vehicle exhaust emissions would be modelled for each detailed phase of the Development - secured by a suitably worded planning condition.

Operational Development Methodology

Effects of the Development on Local Air Quality

6.23 With regards to the operational phase, the Environmental Protection UK (EPUK) and Institute of Air Quality Management (IAQM) planning development guidance (EPUK / IAQM Guidance)¹, summarised in **Appendix 6.1A**, sets out criteria for when an Air Quality Assessment is required to accompany a planning application. The guidance states an Air Quality Assessment is required if there is:

- a change of more than 100 Light Duty Vehicles (LDV’s) flows in Annual Average Daily Traffic (AADT) within or adjacent to an AQMA or more than 500 AADT elsewhere;
- a change of more than 25 Heavy Duty Vehicles (HDV) flows AADT within or adjacent to an AQMA or more than 100 AADT elsewhere; or
- any combustion plant where the single or combined NOx emission rate is greater than 5 mg/sec.

6.24 The transport consultants, Waterman, have confirmed the trips generated by the Proposed Development would not result in a change of more than 100 LDVs or 25 HDVs (see Chapter 13).

6.25 A qualitative review of the operational traffic data against the criteria set out within the EPUK / IAQM Guidance was used to determine potential operational impacts of the Proposed Development.

¹ Environmental Protection UK & Institute of Air Quality Management (2017), ‘Land-Use Planning & Development Control: Planning for Air Quality’, EPUK & IAQM, London

- 6.26 The only combustion plant within the Proposed Development would be generators for emergency and life safety power supply only. These generators would use hydrotreated vegetable oil (HVO) fuel which burns cleaner than diesel and would be tested for less than 18 hours a year, ensuring the emergency generators would not lead to hourly exceedances of either NO₂ or PM₁₀ objectives. The impact of the emergency generators have, therefore, not been considered further.

Predicted Future Exposure

- 6.27 A qualitative review of the baseline air quality conditions was used to determine the predicted future exposure of users of the Proposed Development.

Magnitude of Construction Impact

Dust Emissions

- 6.28 The potential impacts of construction activities on local air quality were based on professional judgement and with reference to the criteria set out in the IAQM Construction Guidance. Appropriate mitigation that would be implemented to minimise any adverse impacts on air quality have also been considered.
- 6.29 The assessment of the risk of dust impacts arising from the likely construction activities, as identified by the IAQM Construction Guidance, is based on the magnitude of potential dust emissions and the sensitivity of the area. The matrices presented in **Tables 6.4A – 6.7A** provide a method of assigning the level of risk for each activity. This should be used to determining the level of mitigation that must be applied.

- 6.30 ~~The risk category matrix for construction activity types are presented in Table 6.4 to Table 6.7.~~

- 6.31 **Table 6.4A: Risk Category from Demolition Activities**

SENSITIVITY OF AREA	DUST EMISSION MAGNITUDE		
	LARGE	MEDIUM	SMALL
High	High Risk	Medium Risk	Medium Risk
Medium	High Risk	Medium Risk	Low Risk
Low	Medium Risk	Low Risk	Negligible

Table 6.5A: Risk Category from Earthworks Activities

SENSITIVITY OF AREA	DUST EMISSION MAGNITUDE		
	LARGE	MEDIUM	SMALL
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table 6.6A: Risk Category from Construction Activities

SENSITIVITY OF AREA	DUST EMISSION MAGNITUDE		
	LARGE	MEDIUM	SMALL
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Medium Risk	Low Risk
Low	Low Risk	Low Risk	Negligible

Table 6.7A: Risk Category from Trackout Activities

SENSITIVITY OF AREA	DUST EMISSION MAGNITUDE		
	LARGE	MEDIUM	SMALL
High	High Risk	Medium Risk	Low Risk
Medium	Medium Risk	Low Risk	Negligible
Low	Low Risk	Low Risk	Negligible

6.32 The risk of dust impacts determined for each construction activity type is used to define the appropriate mitigation measures that should be applied. The IAQM Construction guidance recommends significance is only assigned to the effect after considering mitigation and assumes all actions to avoid or reduce the effects are inherent within the design of the Proposed Development. In the case of construction mitigation, via a CEMP, this would be secured by planning condition. Therefore, in this assessment no significance is identified for the pre-mitigation construction impacts.

6.33 However, to maintain consistency with the structure of this EIA and ES, pre-mitigation significance criteria, outlined below, has been applied which are based on professional judgement.

- Major adverse effect (significant) - Receptor is less than 20m from an active construction site;
- Moderate adverse effect (significant) - Receptor is 20m to 100m from an active construction site;
- Minor adverse effect (not significant) - Receptor is between 100m and ~~350m~~250m from an active construction site; and
- Negligible (not significant) - Receptor is over ~~350m~~250m from an active construction site.

6.34 IAQM outlines that experience of implementing mitigation measures for construction activities demonstrates that total mitigation is normally possible such that residual effects would not be 'significant'. Therefore, it follows that, within this assessment, no post-mitigation matrix of significance criteria is provided for the likely residual effects of the construction works.

Construction Vehicle and Plant Exhaust Emissions

6.35 The impact magnitude from construction vehicle and plant exhaust emissions on air quality were based on professional judgement.

Magnitude of Impact of Operational Development

6.36 The impact magnitude from the Proposed Development on local air quality were based on EPUK / IAQM Guidance and professional judgement of a competent professional who is suitably qualified.

Assessment of Significance

Construction

Dust Emissions

6.37 The significance of the potential effects of dust emissions arising from construction activities on local air quality are based on professional judgement and with reference to the criteria set out in the IAQM Construction Guidance.

Construction Vehicle and Plant Exhaust Emissions

- 6.38 The significance of the effects of construction vehicle and plant emissions was based on professional judgement of a competent professional who is suitably qualified.

Operational Development

- 6.39 Following the approach to assessing significance outlined in the EPUK / IAQM Guidance, the significance of likely effects of the completed and operational Proposed Development on air quality has been established through professional judgement and the consideration of the following factors:
- 6.40 The geographical extent (local, district, regional or national);
- Their duration (effects resulting from the completed and operational Proposed Development are classed as 'long-term' effects);
 - Their reversibility (temporary or permanent);
 - The magnitude of changes in pollution concentrations;
 - The exceedance of standards (AQS objectives); and
 - Changes in pollutant exposure.

Assumptions and Limitations

- 6.41 General assumptions and limitations which apply to all technical chapters are set out in **Chapter 2: EIA Methodology**.
- 6.42 Due to the COVID-19 pandemic, 2020 and 2021 monitoring data was not considered representative of baseline air quality conditions at and surrounding the Application Site. 2020 and 2022 monitoring data has therefore not been considered further. ~~At the time of writing, 2022 monitoring data was not available, 2019 monitoring data has, therefore, been used as it was considered most representative of existing baseline air quality conditions and robust for the purposes of assessment.~~
- 6.43 For the purposes of the nuisance dust assessment, it has been assumed that construction works would be carried out at the boundary of the Site throughout the construction phase. This approach would provide a worst-case assessment.
- 6.44 When assessing the overlap of the construction and operational phases of the Development, a worst-case approach has been undertaken. The assessment has assumed there is the highest level of site occupation whilst construction was still ongoing.

Existing Baseline Conditions

Cambridge City Council Review and Assessment Process

- 6.45 In 2004, Cambridge City Council (CCC) declared an Air Quality Management Area (AQMA) for exceedances of the annual mean NO₂ Air Quality Strategy (AQS) Objective. The AQMA covers an area encompassing the inner ring road and all the land within it (including a buffer zone around the ring road and its junctions with main feeder roads). The Site is located within this AQMA.

Cambridge City Council Local Monitoring

6.46

In 2023 CCC ~~currently undertakes~~ undertook monitoring of NO₂ and particulate matter (PM₁₀ and PM_{2.5}) at five automatic monitors. Details of these are:

- Newmarket Road (CM3): a roadside monitor, located approximately 0.4km north-west of the Site, measuring NO₂ and PM_{2.5};
- Montague Road (CM2): a roadside monitor, located approximately 1.1km north-west of the Site, measuring NO₂ and PM₁₀ and PM_{2.5};
- Parker Street (CM4): a roadside monitor, located approximately 1.3km south-west of the Site, measuring NO₂ and PM₁₀;
- Gonville Place (CM1): a roadside monitor, located approximately 1.4km south-west of the Site, measuring NO₂, PM₁₀ and PM_{2.5}; and
- Regent Street (CM5): a roadside monitor, located approximately 1.5km south-west of the Site, measuring NO₂.
- Monitored concentrations from the five automatic monitors are presented in **Table 6.8A** below.

Table 6.8A: Measured Concentrations at the five CCC Automatic Monitors

ID	POLLUTANT	AVERAGING PERIOD	AQS OBJECTIVE	2016	2017	2018	2019	2022	2023
CM3	NO ₂	Annual Mean (µg/m ³)	40µg/m ³	24	26	25	22	17	16
		1-Hour Mean (No. of Hours)	200µg/m ³ not to be exceeded more than 18 times a year	0	0	0	0	0	0
	PM _{2.5}	Annual Mean (µg/m ³)	25µg/m ³	11	11	10	10	7	7
CM2	NO ₂	Annual Mean (µg/m ³)	40µg/m ³	27	24	25	22	18	19
		1-Hour Mean (No. of Hours)	200µg/m ³ not to be exceeded more than 18 times a year	0	0	1	0	0	0
	PM ₁₀	Annual Mean (µg/m ³)	40µg/m ³	22	20	21	22	17	14
		24-Hour Mean (No. of Days)	50µg/m ³ not to be exceeded more than 35 times a year	2	3	1	6	0	0
	PM _{2.5}	Annual Mean (µg/m ³)	25µg/m ³	-	-	-	-	-	7

ID	POLLUTANT	AVERAGING PERIOD	AQS OBJECTIVE	2016	2017	2018	2019	2022	2023
CM4	NO ₂	Annual Mean (µg/m ³)	40µg/m ³	41	37	32	33	24	22
		1-Hour Mean (No. of Hours)	200µg/m ³ not to be exceeded more than 18 times a year	0	0	0	0	0	0
	PM ₁₀	Annual Mean (µg/m ³)	40µg/m ³	22	21	23	21	21	18
		24-Hour Mean (No. of Days)	50µg/m ³ not to be exceeded more than 35 times a year	4	4	1	5	2	1
CM1	NO ₂	Annual Mean (µg/m ³)	40µg/m ³	36	31	30	28	22	-
		1-Hour Mean (No. of Hours)	200µg/m ³ not to be exceeded more than 18 times a year	0	0	0	0	0	-
	PM ₁₀	Annual Mean (µg/m ³)	40µg/m ³	20	18	19	19	15	-
		24-Hour Mean (No. of Days)	50µg/m ³ not to be exceeded more than 35 times a year	1	3	1	2	1	-
	PM _{2.5}	Annual Mean (µg/m ³)	25µg/m ³	15	15	15	14	15	-
CM5	NO ₂	Annual Mean (µg/m ³)	40µg/m ³	32	29	26	27	24	20
		1-Hour Mean (No. of Hours)	200µg/m ³ not to be exceeded more than 18 times a year	0	0	0	0	0	0

Source: Data obtained from the CCC 2024 Air Quality Annual Status Report, July 2024 Air Quality Annual Status Report, June 2020²

- 6.47 The monitoring results in **Table 6.8A** show that PM₁₀ and PM_{2.5} AQS objectives were met at all five automatic monitors in CCC from 2016 to ~~2019~~2023. The annual mean NO₂ AQS objective was met at all monitors in all years with the exception of the CM4 monitor in 2016.
- 6.48 Pollutant concentrations have ~~generally~~ reduced ~~or remained similar~~ from 2016 to ~~2019~~2023. 24-hour mean PM₁₀ was seen ~~to remain the same at CM1 from 2016 to 2022. to increase between 2016 and 2019 at the CM2, CM4 and CM1 automatic monitors.~~
- 6.49 The ~~2019~~2023 annual mean PM_{2.5} concentration at the CM3 monitor has reached the

Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 target to be equal to or less than 10 µg/m³ by the end of 31st December 2040 already.

- 6.50 In 2023~~49~~, CCC also measured annual mean NO₂ concentrations at ~~69~~72 locations using diffusion tubes. The results for the ~~nine~~eight NO₂ diffusion tubes within 1km of the Site are presented in **Table 6.9A**.

Table 6.9A: Measured NO₂ Concentrations at CCC Diffusion Tubes within 1km of the Site

ID	LOCATION	CLASSIFICATION	DISTANCE TO SITE (KM)	ANNUAL MEAN NO2 CONCENTRATION (MG/M3)					
				2016	2017	2018	2019	2022	2023
DT56	Coldhams Lane 2	Roadside	0.2	27	23	23	20	20	18
DT61	Newmarket Road 3	Roadside	0.4	-	-	33	34	31	27
DT7	Newmarket Road 1	Roadside	0.5	35	32	33	31	27	26
DT35	Abbey Road	Roadside	0.6	21	19	17	17	14	13
DT17	Coldhams Lane	Roadside	0.6	24	22	21	22	19	15
DT13	East Road	Roadside	0.8	26	24	24	22	25	23
DT20	Elizabeth Way	Roadside	0.9	31	26	27	26		
DT14	Mill Road	Roadside	0.9	25	24	23	21	18	18
DT39	Maids Causeway	Kerbside	1.0	32	28	30	27	22	22

Notes: Data obtained from the CCC 2024 Air Quality Annual Status Report, ~~June-July-2020~~ 2024

- 6.51 The results in **Table 6.9A** show the annual mean NO₂ AQS objective of 40µg/m³ was met at all ~~nine~~eight of the closest diffusion tubes closest to the Site from 2016 to ~~2019~~2023. Annual mean NO₂ concentrations reduced between 2016 (or when monitoring started) and ~~2019~~2023 at all eight ~~of the nine~~ diffusion tubes. ~~The annual mean NO₂ concentration at DT61 on Newmarket Road 3, increased slightly from 2018 to 2019.~~

- 6.52 In addition to the monitoring undertaken by CCC, background concentrations of NO_x, NO₂, PM₁₀ and PM_{2.5} are available from the Defra Air Quality Archive for 1x1km grid squares for assessment years between 2018 and 2030. **Table 6.10A** presents the 2023 Defra background concentrations for the grid square the Site is located within (546500, 258500).

Table 6.10A: Defra Background Maps in ~~2019~~2023 for the Grid Square of the Site

POLLUTANT	AQS OBJECTIVE	2019 2023 ANNUAL MEAN CONCENTRATION (MG/M³)
NO _x	-	49.5 16.7
NO ₂	40µg/m³	44.3 12.4
PM ₁₀	40µg/m³	46.2 15.3
PM _{2.5}	25µg/m³	10.81

Data Source: <http://uk-air.defra.gov.uk>

- 6.53 The data in **Table 6.10A** shows that all pollutants are below the respective AQS objectives.

Evolution of the Baseline Conditions without Development

- 6.54 Baseline NO₂ concentrations are likely to decrease in the future after the UK Government's announcement (in July 2017) that new diesel or petrol vehicles will not be sold in the UK from 2030. A general reduction in NO₂ concentrations is already evident in recent years as shown by the monitoring results in **Table 6.8A** and **Table 6.9A**.

Potential Impacts

Construction

- 6.55 Construction activities of the Development have the potential to affect local air quality through Demolition, Earthworks, Construction and Trackout activities, as described above.
- 6.56 The Site is in a predominantly commercial and residential area - the nearest sensitive receptors are residential properties to the south-west of the Site on York Street, to the south of the Site on Sleaford Street and to the north-west of the Site on St Matthew's Gardens all within 20m of the Site boundary. Additionally, Lindeck Dr J medical practice is located within 20m of the Site along York Street, and Brunswick Nursery School is located approximately 250m west of the Site.
- 6.57 There are no designated ecological sites surrounding the Site. Ecology has therefore not been considered further in this assessment.

Dust Emissions

Demolition

- 6.58 The total volume of building to be demolished is estimated to be above 750,000m³. Based on this and considering the criteria in step 2A of the IAQM guidance, the potential dust emissions during demolition activities could be of large magnitude.

Earthworks

- 6.59 The Site area is approximately 6478,0500m². Based on this and considering the criteria in step 2A of the IAQM guidance, the potential dust emissions during earthworks activities could be of large-medium magnitude.

Construction

- 6.60 The total volume of buildings to be constructed could exceed 40075,000m³. Based on the criteria in step 2A of the IAQM guidance, the potential dust emissions during construction activities would be of large magnitude.

Trackout

- 6.61 The number of HDV's leaving the Site would peak at over 50 HDV outward movements in any one day. Based on this and considering the criteria in step 2A of the IAQM guidance, the potential for dust emissions due to trackout activities would be of large magnitude.

Sensitivity of the area

- 6.62 The sensitivity of the area to each main activity has been assessed based on the number and distance of the nearest sensitive receptors to the activity, and the sensitivity of these receptors to dust soiling and human health.

Sensitivities of People to Dust Soiling Effects

- 6.63 There are estimated to be over 100 highly sensitive receptors within 20m of the Site boundary. On this basis (as set out in Table 2 of the IAQM guidance) the sensitivity of the area to dust soiling is high.

Sensitivities of People to the Health Effects of PM₁₀

- 6.64 The 2019/2023 monitored annual mean PM₁₀ concentration was 1422µg/m³ at the Montague Road (CM2) automatic monitor - below the annual mean AQS objective for PM₁₀ of 40µg/m³. There are more than 100 high sensitivity receptors within 20m of the Site boundary. On this basis (as set out in Table 3 of the IAQM guidance) The sensitivity of the area to human health is medium.

Dust Risk Summary

- 6.65 The dust risk categories, based on the potential magnitude of dust emissions and the sensitivity of the area to dust, are presented in **Table 6.11A**.

Table 6.11A: Summary of Risk

RECEPTOR SENSITIVITY	SENSITIVITY OF THE SURROUNDING AREA			
	DEMOLITION	EARTHWORKS	CONSTRUCTION	TRACKOUT
Dust Soiling	High Risk	HighMedium Risk	High Risk	High Risk
Human Health	High Risk	Medium Risk	Medium Risk	Medium Risk

- 6.66 The Site is considered high risk to dust soiling and human health impacts. Mitigation would be required to ensure that adverse impacts be minimised, reduced and, where possible, eliminated.

Construction Vehicle and Plant Exhaust Emissions

- 6.67 During the construction phase of the Proposed Development, the number of HDV's would peak above 50 HDV outward movements in any one day. Considering the sensitivity of the surrounding residential area and increased traffic, it is considered, the potential impact of construction vehicles on air quality would in the worst-case, result in a temporary, local, adverse effect of minor significance during the construction period.
- 6.68 As noted above the constructive vehicle numbers and phasing is indicative for this Outline Application. In accordance with the IAQM Construction Guidance and EPUK / IAQM Guidance, if required, the impact of construction vehicle exhaust emissions would be modelled for each detailed phase of the Development - secured by a suitably worded planning condition.
- 6.69 Any emissions from plant operating on the Site would be very small in comparison to the emissions from traffic movements on the roads adjacent to the Site. It is, therefore, considered the impact of construction plant on pollutant concentrations would be **negligible**.

Operational Development**Effects of the Development on Local Air Quality**

- 6.70 The Proposed Development would result in a reduction of car parking spaces and subsequent reduction in vehicle movements, in annual average daily traffic, when compared to the existing site. It is predicted the Proposed Development would have a **minor beneficial** impact on local air quality.

Predicted Future Exposure

- 6.71 The centre of Site is located approximately 200m from the DT56 Coldham's Lane 2 roadside diffusion tube which is considered representative of annual mean NO₂ concentrations the Site could be exposed to. The monitored ~~2019~~2023 annual mean NO₂ concentration of ~~1820~~µg/m³ is below the AQS objective.
- 6.72 The CM3 Newmarket Road automatic monitor, located 0.4km north-west of the centre of the Site, is considered representative of PM_{2.5} concentrations at the Site. The ~~2019~~2023 annual mean PM_{2.5} concentration was below the AQS objective.
- 6.73 The CM2 Montague Road automatic monitor, located 1.1km north-west of the Site, is considered representative of PM₁₀ and PM_{2.5} concentrations at the Site. The ~~2019~~2023 PM₁₀ and PM_{2.5} concentrations at the CM2 Montague Road automatic monitor were below the AQS objectives for both ~~annual mean and 24-hour mean~~ PM₁₀ and PM_{2.5}.
- 6.74 Based on the pollutant concentrations at the monitors above (and shown in **Table 6.8A** and **Table 6.9A**), it is considered, the AQS objectives are likely to be met for future users of the Site. The impact on future users of the Development would be negligible.

Overlap of Construction and Operational Phases

- 6.75 If the construction and operational phases overlap, the overlap would have the potential to impact local air quality.

Dust Emissions

- 6.76 During the construction phase, the Site is considered high risk to dust soiling and human health impacts. Mitigation would be required to ensure that adverse impacts on future users of the Proposed Development be minimised, reduced and, where possible, eliminated.

Construction Vehicle and Plant Exhaust Emissions

- 6.77 The pollutant concentrations of NO₂, PM₁₀ and PM_{2.5} are significantly below the AQS objectives at monitors considered representative of pollutant concentrations at the Site. Construction vehicle and plant exhaust emissions were therefore considered to have a negligible effect on the future users of the Proposed Development.
- 6.78 The Proposed Development would result in a reduction of car parking spaces and subsequent reduction in vehicle movements, in annual average daily traffic, when compared to the existing site. The effect of vehicles during the overlap of construction and operation would be less than the peak construction phase. In the worst-case, the potential impact of construction and operational vehicles would result in a temporary, local, adverse effect of minor significance during the construction period.

Evaluation of Predicted Impacts

Construction

Dust Emissions

- 6.79 As outlined in **Table 6.11A**, the Site is a high-risk site, due to dust soiling and human health impacts.
- 6.80 The impact of construction dust emissions, in the absence of mitigation, could give rise to:
- Temporary, local effects of major adverse significance at receptors within 20m of the Site boundary;

- Temporary, local effects of moderate adverse significance at receptors between 20m and 100m of the Site boundary;
- Temporary, local effects of minor adverse significance at receptors between 100m and 2350m of the Site boundary; and
- Negligible effects at receptors over 2350m from the Site boundary.

6.81 Consequently, a range of environmental management controls would be developed with reference to the IAQM guidance for high-risk sites. The mitigation measures would be included within a CEMP and implemented to prevent the release of dust entering the atmosphere and / or being deposited on nearby receptors. An outline CEMP has been prepared in support of the planning application and details measures to control dust. The CEMP will be agreed with CCC and secured by planning condition.

Construction Vehicle and Plant Exhaust Emissions

6.82 Considering the sensitivity of the surrounding residential and commercial area, it is considered, the potential impact of construction vehicles on air quality would be in the worst-case, result in a temporary, local, adverse effect of **minor significance** during the construction period.

6.83 Any emissions from plant operating on the Site would be very small in comparison to the emissions from traffic movements on the roads adjacent to the Site. It is therefore considered that even in the absence of mitigation, their likely effect on local air quality would be **negligible**.

Operational Development

Effects of the Development on Local Air Quality

6.84 The Proposed Development would result in a reduction of car parking spaces and subsequent reduction in vehicle movements, in annual average daily traffic, when compared to the existing site. Additionally, the only combustion plant within the Proposed Development would be generators for emergency and life safety power supply only. These generators would use hydrotreated vegetable oil (HVO) fuel which burns cleaner than diesel and would be tested for less than 18 hours a year, ensuring the emergency generators would not lead to hourly exceedances of either NO₂ or PM₁₀ objectives. The impact of the emergency generators have, therefore, not been considered further.

6.85 The Proposed Development would be in accordance with Planning Policy 36 of the Cambridge City Local Plan. Policy 36 details that any new development should not have an adverse effect on air quality within the AQMA.

6.86 The Cambridge Air Quality Action Plan has the following three key priorities:

- Priority 1 – Reduce emissions in the central areas of Cambridge;
- Priority 2 – Reduce emissions across Cambridge; and
- Priority 3 – Keep emissions low in the future.

6.87 As above, the Proposed Development would have a **minor beneficial** impact on local air quality and would be in line with the three priorities of the Cambridge Air Quality Action Plan.

Predicted Future Exposure

6.88 It is predicted, the Proposed Development would have a **negligible** effect on future users of the Development.

Overlap of Construction and Operational Phases

- 6.89 It is predicted, the overlap of the construction and operational phases of the Proposed Development would not exceed the level of effects already identified in the Construction and Operational Development assessments set out above.

Mitigation

Construction

Dust Emissions

- 6.90 A range of environmental management controls would be developed with reference to the IAQM guidance for high-risk sites. The mitigation measures are included within the outline CEMP prepared in support of the planning application. These measures will prevent the release of dust entering the atmosphere and / or being deposited on nearby receptors. The CEMP will be secured by planning condition.
- 6.91 Mitigation measures are routinely and successfully applied to construction projects throughout the UK and are proven to significantly reduce the potential for adverse nuisance dust effects associated with the various stages of the construction work.

Construction Vehicle and Plant Exhaust Emissions

- 6.92 All construction traffic logistics would be agreed with CCC as part of the CEMP. Consideration would also be given to the avoidance, or limited use, of traffic routes in proximity to sensitive uses (i.e. residential roads etc.) and the avoidance, or limited use, of roads during peak hours, where practicable. The likely residual effect of construction vehicles entering and egressing the Site to air quality would be **negligible**.
- 6.93 No mitigation measures are proposed to mitigate against construction plant emissions.

Operational Development

- 6.94 No mitigation measures are required to mitigate against the operational development. However, ~~car club spaces are proposed and~~ rapid electric vehicle charging infrastructure would be provided for 2219 car park spaces, with the remaining spaces ~~with having~~ passive electric vehicle charging infrastructure. ~~Additionally, 4,593 cycle spaces and 290 new trees are proposed. These measures car club spaces and electric vehicle charging infrastructure would help~~ keep emissions low in the future, in accordance with the Cambridge Air Quality Action Plan.

Overlap of Construction and Operational Phases

- 6.95 No further mitigation measures from those set out above would be required to mitigate against the overlap of the construction and operational phases of the Development.

Residual Effects

Construction

Dust Emissions

- 6.96 Following the implementation of the mitigation measures mentioned above, the residual effect due to dust emissions would be **negligible**.

Construction Vehicle and Plant Exhaust Emissions

- 6.97 The likely residual effect of construction vehicles entering and egressing the Site to air quality would be **negligible**.

- 6.98 Even in the absence of mitigation, the likely effect of any emissions from plant operation on the Site is considered to be **negligible**. This would therefore remain the likely residual effect.

Operational Development

- 6.99 No mitigation measures are required to mitigate against the operational development. Residual effects are that of the predicted effects which are **minor beneficial**.

Overlap of Construction and Operational Phases

- 6.100 No mitigation measures are required to mitigate against the overlap of the construction and operational phases.

Monitoring

- 6.101 A range of measures to minimise or prevent dust and reduce exhaust emissions generated from construction activities, inclusive of monitoring, would be set out in a Dust Management Plan and implemented throughout the construction phase. Construction monitoring would be agreed with CCC and would be developed with reference to the IAQM Construction Guidance. The Site is a high-risk site in relation to nuisance dust emissions, therefore, PM₁₀ monitoring would be required during construction using two automatic real-time particulate monitors.
- 6.102 CCC would continue to monitor local air quality using diffusion tubes across their administrative boundary.

Summary of Impacts

Construction

Dust Emissions

- 6.103 Following the implementation of a range of environmental management controls, included within the CEMP, the residual effect due to dust emissions would be **negligible**.

Construction Vehicle and Plant Exhaust Emissions

- 6.104 The likely residual effect of construction vehicles entering and egressing the Site to air quality would be **negligible**.
- 6.105 Even in the absence of mitigation, the likely effect of any emissions from plant operation on the Site is considered to be **negligible**. This would, therefore, remain as the likely residual effect.

Operational Development

- 6.106 No mitigation measures are required as part of the operational phase.
- 6.107 A summary of impacts can be found in **Table 6.12A**.

Table 6.12A: Summary of Impacts: *Air Quality*

DESCRIPTION OF IMPACT	GEOGRAPHICAL IMPORTANCE	RECEPTOR SENSITIVITY	MAGNITUDE	IMPACT BEFORE MITIGATION				MITIGATION	IMPACT AFTER MITIGATION (RESIDUAL)			
				ADVERSE/BENEFICIAL	REVERSIBLE/IRREVERSIBLE	SHORT-TERM/LONG TERM	SIGNIFICANCE		ADVERSE/BENEFICIAL	REVERSIBLE/IRREVERSIBLE	SHORT-TERM/LONG TERM	SIGNIFICANCE
Impact of Construction Dust Emission - receptors within 20m of the Site boundary	Loc	High	High	Adv	Rev	ST	Maj	Implementation of a range of environmental management controls as set out in the IAQM Guidance for high-risk sites. These would be set out in a CEMP which is anticipated to be a condition on any future planning consent.	Adv	Rev	ST	Neg
Impact of Construction Dust Emission - receptors within 20m-100m of the Site boundary	Loc	High	Med	Adv	Rev	ST	Mod	Implementation of a range of environmental management controls as set out in the IAQM Guidance for high-risk sites. These would be set out in a CEMP which is anticipated to be a condition on any future planning consent.	Adv	Rev	ST	Neg
Impact of Construction Dust Emission - receptors within 100-350m of the Site boundary	Loc	High	Low	Adv	Rev	ST	Min	Implementation of a range of environmental management controls as set out in the IAQM Guidance for high-risk sites. These would be set out in a CEMP which is anticipated to be a condition on any future planning consent.	Adv	Rev	ST	Neg
Impact of Construction Dust Emission - receptors over 350m of the Site boundary	Loc	High	Low	Adv.	Rev	ST	Neg	Implementation of a range of environmental management controls as set out in the IAQM Guidance for high-risk sites. These would be set out in a CEMP which is anticipated to be a condition on any future planning consent.	Adv	Rev	ST	Neg

DESCRIPTION OF IMPACT	GEOGRAPHICAL IMPORTANCE	RECEPTOR SENSITIVITY	MAGNITUDE	IMPACT BEFORE MITIGATION				MITIGATION				IMPACT AFTER MITIGATION (RESIDUAL)			
				ADVERSE/BENEFICIAL	REVERSIBLE/IRREVERSIBLE	SHORT-TERM/LONG TERM	SIGNIFICANCE					ADVERSE/BENEFICIAL	REVERSIBLE/IRREVERSIBLE	SHORT-TERM/LONG TERM	SIGNIFICANCE
Construction Vehicle Exhaust Emissions	Loc	High	Low	Adv	Rev	ST	Min	All construction traffic logistics would be agreed with CCC as part of the CEMP. Consideration would also be given to the avoidance, or limited use, of traffic routes in proximity to sensitive uses (i.e. residential roads etc.) and the avoidance, or limited use, of roads during peak hours, where practicable.				Adv	Rev	ST	Neg
Construction Plant Exhaust Emissions	Loc	High	Low	Adv	Rev	ST	Neg	Implementation of a range of environmental management controls as set out in the IAQM Guidance for high-risk sites. These would be set out in a CEMP which is anticipated to be a condition on any future planning consent.				Adv	Rev	ST	Neg
Effects of the Development on Local Air Quality	Loc	High	Low	Ben	Irrev	LT	Min	None proposed.				Ben	Irrev	LT	Min

Key:

Loc: Local Med: Medium Min: Minor Adv: Adverse Neg: Negligible LT: Long-Term
 Mod: Moderate Ben: Beneficial Irrev: Irreversible Rev: Reversible ST: Short Term

Cultural Heritage

