PROJECT	PLANNING REFERENCE	KEY ELEMENTS OF PROPOSAL	REASONS FOR INCLUSION/EXCLUSION BASED ON CRITERIA PROVIDED ABOVE
Land South of Coldhams Lane Cambridge Cambridgeshire	21/05476/FUL	Hybrid planning application comprising: For Parcel A: outline application for development of 31,400sqm (GEA) of commercial floorspace, For Parcel B: full application for ecological enhancements through habitat creation and management with restricted public access; For Parcel C (the Lakes): full application for the opening of the Site to public access for passive recreation, alongside delivering ecological enhancements	This project is approximately 1km southeast of the Proposed Development. The project was submitted in December 2021 but not yet been granted planning permission. Given the application for this project is a full application, there are unlikely to be any overlap in the timing of construction works. There are also unlikely to be any operational cumulative effects with the Proposed Development. This project has therefore been scoped out of the cumulative assessment.
Devonshire Gardens Devonshire Road Cambridge Cambridgeshire CB1 2BJ	22/01982/FUL	Demolition of existing depot building and redevelopment of site to provide three new buildings comprising Class E, two new residential buildings comprising 70 residential units.	This project is approximately 630m south of the Proposed Development. This project was submitted in April 2022 and was granted planning permission in August 2022. Given this project is a full planning application, there is unlikely to be any overlap in construction timings with the Proposed Development. Given the residential nature of the Proposed Development, there are unlikely to be any operational cumulative effects with the Proposed Development. This project has therefore been scoped out of the cumulative assessment.

PROJECT	PLANNING REFERENCE	KEY ELEMENTS OF PROPOSAL	REASONS FOR INCLUSION/EXCLUSION BASED ON CRITERIA PROVIDED ABOVE
Mill Road Depot Mill Road Cambridge CB1 2AZ	17/2245/FUL	Erection of 182 dwellings	This project is approximately 300m south of the Proposed Development. The project is almost fully constructed, therefore there will not be any overlap in the timing of construction with this project and the Proposed Development. Given the residential nature of this project, there are unlikely to be any operational cumulative effects with the Proposed Development. This project has therefore been excluded from the cumulative assessment.
10A Cheddars Lane Cambridge Cambridgeshire CB5 8LD	22/01825/FUL	Proposed new office building of approximately 2,971sq.m in floor area and is split across a maximum of three stories with a roof plant level.	This project is approximately 430m north of the Proposed Development. The application for this project was submitted in April 2022 but has not yet been granted planning permission. Given the application for this project is a full application, there is unlikely to be any overlap in construction timings with the Proposed Development. There are unlikely to be any operational cumulative effects with the Proposed Development. This project has therefore been scoped out of the cumulative assessment.
Blocks B2 & F2, Devonshire Quarter Devonshire Road Cambridge Cambridgeshire	23/01474/FUL	Erection of two new buildings comprising	This project is located approximately 1.13km from the Proposed Development and the planning application was submitted in April 2023 and awaiting determination. Given this is not yet a committed development, this has been scoped out of the cumulative assessment.

PROJECT	PLANNING REFERENCE	KEY ELEMENTS OF PROPOSAL	REASONS FOR INCLUSION/EXCLUSION BASED ON CRITERIA PROVIDED ABOVE
104 - 112 Hills Road Cambridge Cambridgeshire	20/03429/FUL	The demolition of Betjeman House, Broadcasting House, Ortona House, Francis House, and the rear multi-storey carpark to Francis House, together with existing refuse and cycle stores; to allow for construction of two new commercial buildings of five and seven storeys	This project was determined at appeal in early 2022 and is located approximately 1.3km southwest of the Proposed Development. Given the distance of this project from the Proposed Development and that the application for the Proposed Development is only at the outline stage, there are unlikely to be cumulative construction effects with the Proposed Development. This project has therefore been scoped out of the cumulative assessment.
Lockton House Clarendon Road Cambridge Cambridgeshire CB2 8FH	20/04826/FUL	Demolition of Lockton House and 1&2 Brooklands Avenue and replacement with two new buildings comprising offices (Use Class E), flexible commercial space (Use Class E)	This project is approximately 1.5km southwest of the Proposed Development and was granted permission in September 2021. Given the application for the Proposed Development is an outline application, there is unlikely to be any overlap in construction. This project has therefore been excluded from the cumulative assessment.

14.11 The CCC Scoping Opinion (**Appendix 2.2**) agreed with the approach to the cumulative assessment and the projects to be included within the cumulative impact assessment.

14.12 The following projects have therefore been included within the cumulative assessment:

- Land North of Cambridge North Station - 22/02771/OUT
- Land North of Cherry Hinton Coldhams Lane - 18/0481/OUT
- 230 Newmarket Road Plot 1 – emerging.

14.13 The projects mentioned above have been used to inform the cumulative assessment of each topic. The summaries of the cumulative assessment for each topic are detailed below.

Predicted Cumulative Effects – Inter-Project Effects

Air Quality

Construction

Dust Emissions

14.14 The main effects on air quality during the construction phase relate to dust emissions. Owing to the typical dispersal and deposition rates of dust with distance from their source and assuming

the implementation of CEMPs, it is considered the cumulative dust effects would likely be an issue for cumulative schemes within 100m of the Site, and only if they were to be constructed at the same time.

14.15 Given the close proximity of 230 Newmarket Road (Plot 1) to the Proposed Development, if constructed at the same time, this could in the worst-case result in a temporary, short-term, local, adverse residual cumulative effect of **minor significance**.

Construction Vehicle and Plant Exhaust Emissions

14.16 Construction vehicle emissions from the combined construction traffic of the Proposed Development and the Cumulative Schemes could also give rise to residual cumulative effects on local air quality. However, this would depend upon the extent to which the implementation of the Proposed Development and the Cumulative Schemes overlap.

14.17 In the worst-case scenario, whereby the construction of the other cumulative schemes would overlap with the construction of the Development and use the same, or nearby construction traffic routes and assuming the schemes comply with their own CEMPs and Construction Logistic Plans, the likely residual cumulative effect would be temporary, short-term, local, adverse and of **minor significance**.

14.18 The likely residual cumulative effects from construction plant exhaust emissions operating on the Site and on the other cumulative schemes would be **negligible**.

Operational Development

Effect of Development on Local Air Quality

14.19 The effect of the Proposed Development on air quality is mainly linked to associated changes in traffic flows. The traffic data considered in the air quality assessment does not account for the Cumulative Schemes. However, taking into account the location of the cumulative schemes and their associated traffic routing, it is considered the likely cumulative residual effects of traffic emissions upon local air quality from the Proposed Development and cumulative schemes would be small when compared to existing traffic numbers. The likely residual cumulative effects from road traffic emissions were therefore considered to be **negligible**.

Cultural Heritage

14.20 It is considered that there will be no change to the built heritage character that will be reflected in an impact on the identified receptor due to the implementation of all the considered developments listed in paragraph 14.12. Cumulative built heritage effects are therefore not considered likely.

Flood Risk, Drainage and Water Resources

Construction

14.21 Following grant of planning consent, Anglian Water would have an obligation to provide sufficient resilience within the sewerage network to accommodate foul flows during construction from the Proposed Development and the schemes listed in paragraph 14.12 without detriment to the water environment, in particular the water quality of the receiving water body downstream of the relevant wastewater treatment facility, namely Milton WRC.

14.22 As such, cumulative effects relating to flood risk, water quality or foul drainage capacity resulting

from the demolition and construction phase of the Proposed Development and the schemes listed in paragraph 14.12 or combinations thereof, would be a **temporary (short term), local neutral effect of minor / negligible significance**.

14.23 Whilst the local networks may have available capacity, there is a potential requirement for strategic borehole abstraction to be marginally increased by Cambridge Water to serve the construction phase of the Proposed Development and nearby schemes.

14.24 Prior to implementation of third party upgrades to the strategic supply by Cambridge Water, the cumulative effects relating to regional groundwater resources resulting from the demolition and construction phase of the Proposed Development and the schemes listed in paragraph 14.12, or combinations thereof, would remain a **temporary (short term), regional / district, adverse effect of minor significance**.

Complete and Operational Development

14.25 Local and national planning policy requires that any off-site impacts on flood risk and water quality as a result of Proposed Development are to be mitigated within land under the Applicant's control. Proposed development sites need only to be considered individually in terms of flood risk and surface water management.

14.26 Upon grant of planning consent, Anglian Water would also have an obligation to provide sufficient resilience within the sewerage network to accommodate foul flows from the Proposed Development and nearby cumulative development without detriment to the water environment, in particular the water quality of the receiving water body downstream of the relevant wastewater treatment facility, namely Milton WRC.

14.27 As such, cumulative effects relating to flood risk, water quality or foul drainage capacity resulting from the operational phase of the Proposed Development and the schemes listed in paragraph 14.12 or combinations thereof, would be a **permanent (long term), local neutral effect of minor / negligible significance**.

14.28 Potential cumulative impacts upon local groundwater resources and water supply networks impacts are mitigated by promoting water efficiency and rainwater reuse to drive down potable water demand as part of each individual application.

14.29 Furthermore, as part of the supply connection application process, Cambridge Water will manage capacity within local water supply networks serving each of the application sites to ensure residual impacts remain a **permanent (long term), local neutral effect of negligible significance**.

14.30 Whilst the local networks may have available capacity there is a potential requirement for strategic borehole abstraction to be marginally increased by Cambridge Water to serve the operational phase of the Proposed Development and nearby schemes.

14.31 Prior to implementation of third party strategic upgrades to the strategic supply by Cambridge Water, the cumulative effects relating to regional groundwater resources resulting from the operational phase of the Proposed Development and the schemes listed in paragraph 14.12, or combinations thereof, would remain a **permanent (short term), regional / district adverse**

effect of minor significance.

14.32 Following implementation of third party strategic reinforcement schemes, leakage reduction, and upgrades to the strategic supply by Cambridge Water, the residual cumulative effects relating to regional groundwater resources and associated ecological and environmental receptors resulting from the operational phase of the Proposed Development and the schemes listed in paragraph 14.12 or combinations thereof, would be a **permanent (long term), regional / district neutral effect of negligible significance** and would be anticipated to remain negligible over the operational lifetime of the Proposed Development.

Ground Conditions and Contamination

14.33 A requirement for all new developments is that ground contamination be appropriately managed to prevent impacts to surrounding receptors, as set out by Part IIA of the Environmental Protection Act 1990. As this legislation requires the potential impacts to all off-site receptors be mitigated throughout the development construction and operation, this prevents the aggregation of cumulative impacts across the surrounding area.

14.34 As such, with respect to ground conditions there are not considered to be any potential cumulative effects.

Townscape and Visual

14.35 The three projects illustrated in **Figure 10.4** were considered to establish potential cumulative effects with the Proposed Development. As illustrated in the technical visualisations, there will be no intervisibility of projects 03 and 02 with the Proposed Development in the identified viewpoints. Therefore, there will be no cumulative visual effects.

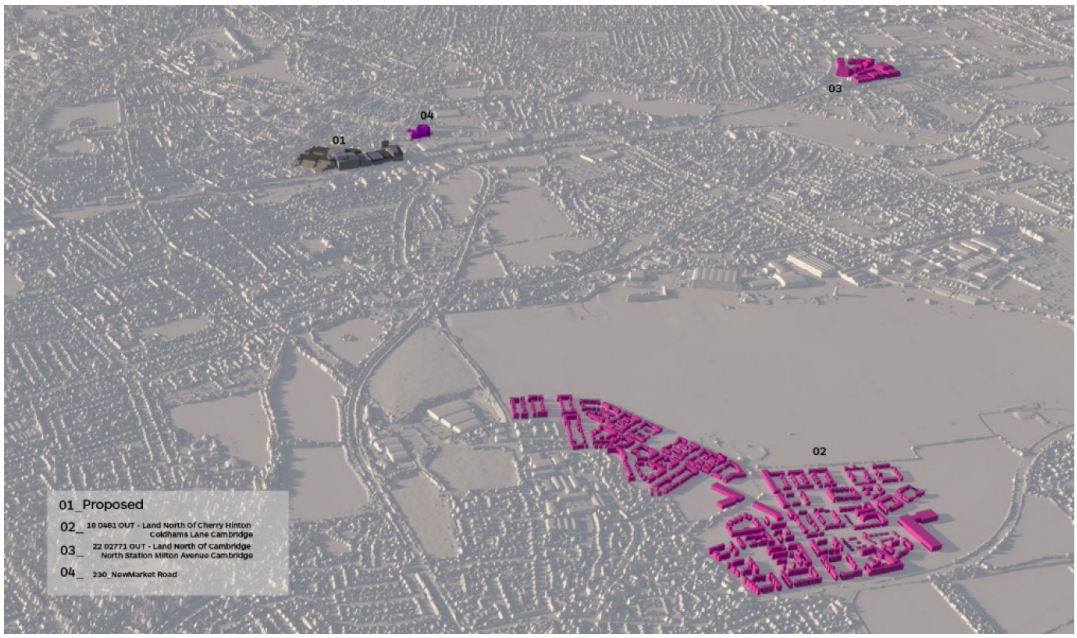

Figure 14.1: Cumulative Projects in Pink

14.36 Project 04 is visible in viewpoints 1, 2, 3 and 11 resulting in the following cumulative effects:

- Viewpoint 1 – the magnitude of effects would not be increased in the cumulative scenario as the Proposed Development is the primary source of impact on the view with project 04 visually recessive.

- Viewpoints 2 and 3 – project 04 is only partially visible in the technical visualisations, suggesting it would not contribute to the magnitude of change in the view. However, in the context of the kinetic view along the footpath, there will be a slight increase in the urban character of the park enclosure where industrial and commercial development is already visible (see context Type 1 photography in Appendix 3) and where vegetation filter views of the built from behind. Therefore, the magnitude of change for the cumulative scenario is considered again medium, as identified for the sole Proposed Development in **Appendix 10.3**.
- Viewpoint 11 – although causing a small increase of the geographical extent, project 04 appears visually recessive with the Proposed Development remaining the primary source of change. Therefore, the cumulative impact will be equivalent to the one assessed for the proposal in **Appendix 10.3**.

14.37 In relation to the townscape effects, it is noted that projects 2 and 3 sit outside the study area of this TVIA. Therefore, it is considered that there will be no change to the local townscape or landscape character that will cause an impact on the identified receptors due to the implementation of all the considered developments.

14.38 Project 4 will not change the nature of the local townscape, which is already commercial within the Site, but it will consolidate the new scale of townscape characterised by tall buildings, relative to the contextual, low-lying residential character. It is noted that the geographical extent of the effects of the cumulative scenario is no greater than the Proposed Development alone, and the scale of change is not greater as the Proposed Development remains the primary source of impact on the identified townscape receptors.

14.39 In conclusion, there will not be cumulative townscape or visual effects.

Noise and Vibration

14.40 Consideration has also been given to the possibility of cumulative noise and vibration impacts occurring should multiple developments in the local area come forward at the same time. Further to the two developments identified within the Scoping Report (Planning references: 18/0481/OUT and 22/02771/OUT) consideration has also been given to 230 Newmarket Road Plot 1 which is still in early design development and yet to be permitted.

14.41 These developments will have their own local receptors to consider in terms of noise and vibration. Controlling noise and vibration impacts at these receptors will inherently avoid any significant impacts upon the receptors closest to the Proposed Development.

14.42 It can therefore be concluded that there will not be any cumulative effects relating to noise and vibration.

Socio-Economics

14.43 As stated in paragraphs 12.40 to 12.44 the cumulative schemes are all built out before 2034. Therefore effects relating to employment, floorspace, or expenditure have been implicitly included in the future baseline assessment through the good quality forecasts available.

14.44 For effects without a future baseline the impacts relating to retail, open space, and leisure facilities, a cumulative effects assessment is provided.

14.45 For open space, there is only one cumulative scheme which is within the Local Area, the 230 New Market Road development. This development will not bring forward any open space therefore there will be no material impact on open space provision.

14.46 Similarly the impact on leisure will have no cumulative impact as none of the cumulative schemes would provide leisure facilities.

14.47 The 230 Newmarket Road development will bring forward approximately 3,711 sqm (NIA) of retail floorspace. There is also potential for the 'Land North of Cambridge North Station Milton Avenue Cambridge' development to bring forward retail space in at least one of the two commercial buildings. It is assumed that the cumulative schemes would have a minor beneficial magnitude of impact on a moderate sensitivity receptor, which results in a minor beneficial effect which is not significant.

Transport

14.48 Construction traffic associated with the committed developments listed in paragraph 14.12 is not expected to result in any significant cumulative effects in terms of construction.

14.49 Each of the developments will have identified transport strategies in order to mitigate the impacts of development. These include highway improvements and the provision of pedestrian and cycle infrastructure to promote the use of sustainable transport and mitigate increases in driver delay in the peak hours. Therefore, there is expected to be little increase in vehicle trips on the highway network in the vicinity of the Site.

14.50 Overall, there are not expected to be any significant cumulative effects as a result of these developments.

Predicted Cumulative Effects – Intra Project Effects

14.51 The receptors considered to be the most sensitive to the cumulative impacts are nearby residents including those on St Matthew's Gardens, York Street and Sleaford Street. Other sensitive receptors include visual receptors at Castle Hill Mound Scheduled Monument, Coldham's Common and users on the local road network.

14.52 A summary of the residual effects for each chapter is provided below:

Air Quality

14.53 There will be a **minor beneficial** residual effect with regards to the local air quality once the Proposed Development is operational. All other residual effects were considered to be **negligible**.

Cultural Heritage

14.54 The Cultural Heritage Assessment found that there would be **moderate adverse** residual effects on the setting of Jesus College Chapel and Church of Christ Church, and a **moderate / minor adverse** effect on All Saints Church. All other residual effects were either **minor or neutral.**

Flood Risk, Drainage and Water Resources

14.55 Residual effects on flood risk and drainage and local water resources and supply networks were considered to be **negligible** following mitigation.

14.56 Residual effects upon strategic water resources and associated ecological and environmental receptors ranged from **minor adverse** to **minor beneficial.**

Ground Conditions and Contamination

14.57 All ground condition and contamination residual effects were considered to be **neutral and not significant.**

Townscape and Visual

14.58 There will be some residual significant effects following the implementation of primary mitigation measures, namely the change in Cambridge's skyline which is also reflected in the visual impact assessment of viewpoints 1 (Castle Hill Mound), 11 (Redmeadow Hill), 13 (Little Trees Hill) and 14b (Limekiln Road Layby). This is largely due to the outline nature of the planning application which forces a worst-case scenario assessment that does not take into consideration architectural detailing such as materials, colour palettes and flue location. There would be **no residual adverse** effects following the implementation of the secondary mitigation measurements.

Noise and Vibration

14.59 Construction noise was considered to be **negligible/minor adverse** and **negligible** in terms of construction traffic noise. All other residual effects were considered to be **minor adverse and not significant.**

Socio-Economics

14.60 The socio-economic assessment found there would be two significant effects as a result of the Proposed Development. These were:

- Local jobs and skills – **moderate beneficial**
- Additional contribution to commercial floorspace – **Major / moderate beneficial**

14.61 All other residual effects were not significant.

Transport

14.62 **No significant t**ransport effects are anticipated during the construction phase of the Proposed Development.

14.63 During the operational phase of the Proposed Development **major beneficial effects (significant)** are anticipated due to the substantial net reduction in traffic flows.

Cumulative Construction Effects

14.64 Construction will take place entirely within the Site. Due to the proximity of nearby residents and site users of the retail site, there will be some construction impacts, most notable being noise, dust and transport.

14.65 The construction residual effects mentioned earlier in this chapter are not anticipated to be significant, with the implantation of standard mitigation measures, including construction management plans, and adherence to good standards and guidance. Based on the considerations above, significant cumulative construction effects on sensitive receptors are not considered likely.

Cumulative Operational Effects

14.66 Once the Proposed Development is operational, sensitive receptors will experience combined effects, particularly air quality, noise and townscape. As mentioned above, residual air quality and noise effects were not considered to be significant. The TVIA concluded that given the outline nature of the application which has considered a worse case scenario and does not take into account detailing such as materials and colour palettes etc, there would be significant adverse townscape and visual effects, although there would be no significant effects following the implementation of the secondary mitigation measures. Therefore, there are unlikely to be significant cumulative effects once the Proposed Development is operational.

Conclusions

14.67 The combined effects of the different types of residual effects from the Proposed Development have been considered, and it is concluded that there are no significant cumulative effects that are attributable to the development.

14.68 The next chapter concludes the outcomes of the EIA processes as reported within the ES.

15 Conclusions

15.0 Conclusions

Introduction

15.1 The planning application prepared to which this ES relates, seeks planning permission for the following:

Outline Application for the demolition and redevelopment for a new local centre (E (a-f), F1(b-f), F2(b,d)), open space and employment (office and laboratory) floorspace (E(g)(i)(ii) to the ground floor and employment floorspace (office and laboratory) (E(g)(i)(ii) to the upper floors; along with supporting infrastructure, including pedestrian and cycle routes, vehicular access, car and cycle parking, servicing areas, landscaping and utilities.

15.2 The EIA has assessed the likely significant environmental effects which are to arise from the Proposed Development, based upon the parameter plans and project information provided and detailed earlier in this ES.

15.3 The EIA Regulations consider that this scale of development constitutes a 'Schedule 2 Development' and, therefore, should at least be 'screened' for whether this project constitutes EIA development or not. In this instance, the Applicant has volunteered an EIA, to ensure a thorough assessment of the environmental effects of the project have been undertaken prior to, and to inform the Masterplan proposals, of the planning application.

15.4 In order to determine the scope of the EIA, a formal scoping process was undertaken, and has continued informally, as required, with the LPA throughout the development of the Proposals and as the technical work has progressed.

15.5 The scoping process was further supplemented by pre-application consultation with the LPA and statutory consultees whilst undertaking the technical assessments. Specialist consultants were appointed to assess these issues and recommended, if necessary, mitigation measures.

15.6 The resultant assessment has been presented, as agreed with the CCC and its consultees, within the following environmental topics:

- Air quality;
- Cultural Heritage;
- Flood Risk, Drainage and Water Resources;
- Ground Conditions and Contamination;
- Noise and Vibration;
- Socio-Economics;
- Townscape and Visual; and
- Transport.

15.7 Each chapter sets out the baseline information for the environmental topic, assess the potential impacts, recommends mitigation measures (if required) and makes a judgement on the significance of the impact, both at the construction phase and the operational phase of the Proposed Development. Each chapter concludes by summarising the results of the assessments in **Table 15.1**. The concluding remarks of each assessment chapter are as detailed in the sections below.

Air Quality

15.8 A qualitative assessment of dust effects during the construction phase has been carried out using the guidance prepared by the Institute of Air Quality Management (IAQM). Due to the proximity of residents to the Site, a range of management practices would be implemented during construction to control dust emissions through implementation of a CEMP. This would significantly reduce the potential for adverse nuisance dust impacts associated with the various stages of the works. It is considered that likely residual effects due to dust emissions would be **negligible.**

15.9 The effect of construction vehicles entering and leaving the Site, following implementation of mitigation, and construction plant emissions would be **negligible** during the construction phase. Nevertheless, construction vehicle routes and timings would be discussed and agreed with the CCC to minimise effects to sensitive receptors.

15.10 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** effect on local air quality.

15.11 A review of the CCC air quality monitoring data indicates the effect of local air quality on future users of the Development would also be **negligible.**

Cultural Heritage

15.12 The assessment of cultural heritage considered the potential effects of the Proposed Development on the heritage assets within the Site and within a 1km Study Area of the Site.

15.13 36 separate assets, which have either a visual or physical connection with the Site were considered in the assessment. This included seven conservation areas, one Registered Park & Garden, one scheduled monument, 13 listed buildings and 14 non-designated assets.

15.14 There are no direct impacts on heritage assets within the Site boundary that would arise as a result of the Proposed Development. The assessment did however find that there is potential for effects on the setting of the heritage assets within the surrounding area during the operational phase due to the permanent change to their settings. These impacts are considered to range between neutral, minor adverse and moderate adverse.

15.15 Effects are considered to be **moderate adverse** to Jesus College Chapter and Church of Christ Church; **minor adverse** to Mill Road Conservation Area, Central Conservation Area, St John's College, University Library, Church of Our Lady, the English Martyr, King's College Chapel, Mill Road Cemetery, Old Cheddar's Lane pumping station, York Street Terraces (excluding nos. 86-92a even, 98-104 even and 101-111a odd), Ainsworth Terraces; **negligible adverse** impact on the Custodian's House, Stone Street Terraces, Sleaford Street Terraces, York Terraces.

15.16 **Neutral** effects occur on Kite, New Town and Glisson Road, Castle and Victoria Road , West Cambridge and Riverside and Stourbridge Conservation Areas, St Matthews Church, 247 Newmarket Road, Cambridge Gas Company War Memorial, Church of St Andrew the Less, Worts Causeway, Limekiln Road and Little Trees Hill views, 33-38 Abbey Walk, Sturton Street Terraces, 179 Sturton Street, 192-198 Sturton Street, Milford Street Terraces, Gwydir Street Terraces, Edward Street Terraces, Norfolk Street Terraces, Norfolk Terrace and Chapel of St Mary Magdalene.

Flood Risk, Drainage and Water Resources

15.17 Potential flood risk and drainage impacts were considered to be adequately mitigated and will result in **negligible** residual effects.

15.18 Potential impacts upon local water resources and water supply networks impacts would be mitigated by promoting water efficiency and rainwater reuse to drive down potable water demand and the residual effects were therefore considered to be **negligible**.

15.19 Potential impacts upon strategic water resources and associated ecological and environmental receptors would be partially mitigated by promoting water efficiency and rainwater reuse to drive down potable water demand, and residual effects would be **minor adverse** in the short term.

15.20 Following implementation of strategic reinforcement schemes and leakage reduction by Cambridge Water in the short to medium term, residual effects upon strategic water resources and associated ecological and environmental receptors would reduce to **negligible** and would be anticipated to remain **negligible** over the operational lifetime of the Proposed Development.

Ground Conditions and Contamination

15.21 The following potential impacts to receptors at or surrounding the Site were identified:

During Construction Works

- Potential for impacts to off-site users due to inhalation of contaminated dust emissions or direct contact with surface run-off from exposed or stockpiled soils during construction works;
- Potential impacts to ground workers and construction workers during demolition and construction from direct contact, ingestion and inhalation of potentially contaminated exposed shallow soils and groundwater, and from inhalation of vapours emitted from contaminated soils;
- Potential for impacts to these surrounding groundwater receptors from lateral or vertical migration of existing contamination in shallow groundwater due to increased rainfall infiltration while hardstanding cover is not present across the Site; and
- Potential for impacts to shallow soils, the secondary A aquifer in the River Terrace Gravels and principal aquifer in the West Melbury Formation from leaks or spills of fuels or chemicals brought on-site to construct the development,

Completed and Operational Development

- Potential for impacts to future Site users via direct contact with contaminated Made Ground in soft landscaped areas;
- Potential impacts to future structures from vapour ingress into the Proposed Development, arising from potentially contaminated soils and groundwater;
- Potential impacts to the off-site shallow secondary A aquifer in the River Terrace Gravels, and principal aquifer in the West Melbury Formation from shallow groundwater contamination.

15.22 The assessment of ground conditions and contamination found that following mitigation which included the use of a CEMP and a further ground investigation, residual effects would be **neutral and not significant.**

Townscape and Visual

Townscape Impact

15.23 The assessment of the impact on the identified townscape receptors resulted in **one significant adverse effect** on Cambridge's skyline, which is also reflected in the visual impact assessment of Viewpoint 1, 11, 13 and 14b. The Proposed Development introduces a new cluster of tall buildings within the receptor; although the extent of the cluster does not cover the whole Site and it has been limited by grouping the taller elements, this contrasts the characterisation of the receptor described as incidents of spires and towers rising from an underlayer of tree canopies. It is noted that although this description is still generally evident, the recent densification of the urban area within and adjacent to the historic centre (including CB1 development around the railway station, the fire station building, the Marque and the Cambridge Assessment's tower) has slightly diluted the prominence of the heritage landmarks. Nonetheless, it is acknowledged that the Proposed Development, albeit located at some distance from the historic core, will introduce a competing element which will further dilute the key qualities of Cambridge's skyline.

15.24 It is also important to note that although it is best professional practice to consider changes of the scale proposed to cause significant adverse effects on the skyline, when high-quality design is achieved this effect would likely become neutral or beneficial as the introduced feature would become a positive landmark that complements the existing receptor. The outline nature of the planning application forces a worst-case scenario assessment, however the details in the DAS and design codes indicate that achievement of high-quality design of a specific perceptual quality (see AVR 3 in **Appendix 10.4**) is possible during the reserved matters stage.

15.25 On the remaining receptors, the Proposed Development is not found to cause adverse effects. Conversely, the regeneration of a negative townscape area will be beneficial to the settings of the Conservation Areas and to the quality of the railway corridor and post-1900 townscape character areas. While it is acknowledged that the scale of the new proposal is in places contrasting to the prevailing low-lying built form, the Proposed Development responds to its context with lower elements located to the west of the Site in a stepping-down approach, it is akin to the existing industrial/commercial uses, and it will introduce townscape benefits that will outweigh the challenging scale. These benefits include areas of green open spaces accessible to the public, which will contribute to activities that promote well-being and function positively towards climate change.

15.26 Finally, the Proposed Development will have a neutral effect on the setting of Coldham's Common, the associated Green Belt openness and the setting of the PRoWs. Although some visual adverse effects are identified on viewpoint 3, the townscape effects consider the Common as a whole and, as evident in the assessment of viewpoint 2, the experience of the setting of the park is diverse, still with a common quality: it is enclosed by built form of residential as well as industrial nature and some tree planting. Therefore, the very quality of the setting of the Common, the Green Belt and the PRoW is unchanged by the introduction of more built form, which is also akin to the existing industrial/commercial uses.

Visual Impact

15.27 The Proposed Development resulted in **some significant adverse effects.** The majority are associated with the impact of the proposals on the Cambridge skyline (viewpoints 1, 3, 11, 13 and 14b), while one (viewpoint 3) is in relation to the visual amenity of receptors within Coldham's Common and the sense of openness of the Green Belt's setting.

15.28 In regards to Cambridge's skyline, the greater visual effects are experienced from Castle Mound Hill (viewpoint 1). In this instance the scale of the change introduced in the view is coupled with the competition of the proposal with the historic core, despite the distance between the two elements, detracting from the distinctive heritage landmarks within the view. While the distance and articulation of the Proposed Development better integrate the built form in the skyline viewed from the west (viewpoint 10 – Redmeadow Hill), resulting in a moderate-minor adverse effect, the remaining long-distance views are also adversely affected by the dominating scale of the Proposed Development which considerably alters the composition of the view.

15.29 As per the townscape effects above, it is important to note that although it is best professional practice to consider changes of the scale proposed to cause significant adverse effects on the visual experience of the skyline, when high-quality design is achieved this effect would likely become neutral or beneficial as the introduced feature would become a positive landmark that complements the existing receptor. The outline nature of the planning application forces a worse case scenario assessment, however, the details in the DAS and design codes suggest that achievement of high-quality design is possible during the reserved matters stage.

15.30 The above is also true for the remaining significant adverse effects on the visual amenity experienced by receptors in Coldham's Common (viewpoint 3). Notably, this is not an adverse effect that relates to the whole park, but it is specific to locations in closer proximity to the Site where vegetation cover is less dense and the urban enclosure more prominent. Albeit the proposal is viewed in the context of the existing urban enclosure and the proposed grouping of the taller buildings helps in the limitation of the geographical extent of the effects preserving the existing sense of openness, the contrasting scale of the Proposed Development with the contextual buildings is evident from this viewing angle.

15.31 Some minor-negligible adverse effects are experienced by road users on the Elizabeth Way Bridge due to the introduction of flues in the skyline which will introduce a new industrial character to the prevailing residential qualities of the Conservation Area.

15.32 The Proposed Development is found to have various degrees of neutral or beneficial effects on the remaining receptors, which include local residents, ramblers along the river towpath, road users within the Conservation Area and pedestrians on the Mill Road bridge. The beneficial effects are particularly evident when the poor conditions of the existing Site are a defining element of the quality of the views experienced by the receptors (viewpoint 8 and 12) and the replacement of these with an architecture of high-quality potential will improve visual amenity.

15.33 Finally, an assessment of night-time views has not been undertaken due to the outline nature of the planning application and lack of light design details. However, it is noted that the proposal is located within an urban area, this is currently identified as a bright area in the CPRE map of dark skies (see map in **Appendix 10.2**). Notably, the map also illustrates the spillage of light in the adjacent Coldham's Common, which clearly reflects the urban enclosure of the park. Although the baseline lighting condition appears to have already affected the appreciation of dark sky and has already created a bright environment for local receptors, it is acknowledged that the Proposed Development could include lighting that might extend the brightest (>32 NanoWatts / cm2/sr) area. It is, therefore, essential that a detailed assessment of the lighting proposal and possible effects is conducted during the reserved matters stage when the detailed design is identified, or in response to a suitably worded planning condition to any subsequent outline planning permission to mitigate potential adverse effects.

Noise and Vibration

15.34 During the construction phase of the Proposed Development, demolition and construction activities as well as construction traffic have the potential to generate high levels of noise and vibration which may adversely affect existing and future receptors within the local area. Prior to mitigation, significant effects are predicted for some construction activities at a limited number of receptors.

15.35 The suitability of the Site for the Proposed Development has been assessed. Based upon a review of noise and vibration conditions around the Site, the assessment has demonstrated that noise ingress can be readily controlled with relatively conventional façade build ups, incorporating acoustically rated double glazing.

15.36 Upon completion of the Proposed Development, noise emissions associated with building services plant and events also have the potential to disturb existing receptors if they are not suitably controlled. Details are not available at this stage, but noise limits have been defined based upon baseline conditions and in line with CCC's standard planning requirements. Compliance with these limits can be expected to avoid significant impacts and can be secured through a suitably worded planning condition.

15.37 During the construction phases, the Principal Contractor will be required to implement "*Best Practicable Means"* to reduce noise and vibration associated with their works. These would be expected to include limits on construction hours, as well as setting out specific measures that will be taken to limit noise and vibration from construction activity. Final details will be set out by the Principal Contractor within a Construction Environmental Management Plant (CEMP).

15.38 In terms of the operational phase of the Proposed Development, details of the types of plant and noise-generating events are not available at this stage, and therefore the primary means of securing future mitigation will be through the use of suitably worded conditions to the planning consent, to be discharged as part of a later Reserved Matters Application. In terms of practical measures, it is expected that plant will be carefully selected to reduce noise at source and fitted with in-line attenuation and acoustic packages where necessary. Noise from the proposed events space will be controlled through combination of suitable building envelope design to contain noise, and operational management plans to limit noise from external activities.

15.39 Overall, **no significant** residual noise and vibration effects are anticipated during either the construction or operational phase of the Proposed Development.

Socio-Economics

Demolition and construction

15.40 The site currently comprises of 17 units, 13 of which are retail units. . Other uses include three F&B units, and a gym. All of these will be displaces to accommodate the Proposed Development. all existing businesses would not be required to move until 2025 at the earliest and have been given prior warning of the Proposed Development and there are alternative options nearby, including the adjacent Cambridge retail Park. based on this, the effect of displacement of existing businesses and workers would be moderate/minor adverse which is not significant.

Completed development

15.41 The Proposed Development would provide a minimum of 5,270 gross additional jobs and 5,930. This is not expected to have a significant effect in the context of the wider labour catchment area.

15.42 Based on commuting patterns approximately 3,300 net additional job opportunities at the Proposed Development are expected to go to district residents. At the full completion year, overall employment for residents in the district is expected to be 175,600. The 3,300 job opportunities represent 1.9% of the overall total district residents based employment. This is considered as moderate/minor beneficial which is not significant.

15.43 The local employment and skills impact is expected to be high. The Proposed Development would provide an increase of jobs across all skill levels compared to the existing site. The Applicant is also committed to a set of employment and skills commitments which directly respond to the barriers facing local residents most in need of employment and skills. As such, the local jobs and skills opportunities is expected to result in a moderate/minor beneficial effect for local residents. Once these commitments are secured via the S106 agreement this effect is deemed to be moderate beneficial which is significant.

15.44 The Proposed Development will bring forward much needed high quality office and lab space, just outside of the city centre. This location is highly sought by occupiers due to its amenity rich offer, accessibility, and its high performing ESG credentials. The existing and future demand greatly outweighs the supply of office and lab space in Cambridge and there is a chronic shortage of lab space which is driving up the rental price. The significant quantum of floorspace brought forward by the Proposed Development is therefore expected to be a major/moderate beneficial effect which is expected to be significant.

15.45 The new local centre as part of the Proposed Development would be minor and beneficial which is not significant.

15.46 The workers as part of the Proposed Development once operational are expected to spend an additional £9.1m per year in the local area compared to the existing workers at the Beehive centre. This is expected to result in a minor but beneficial which is deemed not significant.

15.47 The Proposed Development would provide 2.1ha of open space in an area of deficiency. The provision is expected to be of the highest quality and would be well maintained across its lifetime. This is a substantial amount of open space and is expected to be a moderate/minor and beneficial effect. This is deemed not significant in EIA terms.

15.48 The impact on leisure is considered due to the displacement of the existing gym, which includes a small pool, at the existing site. The pool operates at a 56% capacity, and the baseline shows that its users could be supported at the other pools within Cambridge. The effect is negligible and therefore not significant.

15.49 The potential effect of new employment on housing need and affordability is uncertain. The effect is reliant on a number of different factors. The demand for housing is estimated to increase due to the new jobs. However, because this is an allocated site, the forecasts of housing need will to some extent inherently include the housing demand associated with the Proposed Development. The resulting impact on affordability depends on factors that are difficult to estimate such as the performance of the macroeconomy (interest rates, mortgage

rates and wages), whether workers would be looking to rent or buy, the housing delivery across Greater Cambridge, and much more. Given these uncertainties and the evidence presented in the socio-economics chapter, it is concluded that there would be a relatively modest increase in housing demand alongside a difficult to ascertain impact on affordability. The effect is likely to be adverse and minor, but not significant.

15.50 Overall, there will be significant effects in terms of local jobs and skills which are moderate beneficial and the additional contribution to commercial floor space which is major / moderate beneficial.

Transport

15.51 Demolition and construction of the Proposed Development would generate HGV traffic on the local highway network. To effectively manage these measures to minimise construction traffic and any disruption would be outlined within a CEMP. As part of this, construction traffic routes, access and egress to the Site would be agreed with Cambridgeshire County Council.

15.52 The Proposed Development, once completed and operational, would provide permeability and connectivity across the Site through the provision of roads, footpaths and cycleways. In addition, the Proposed Development would include the provision of secure cycle facilities for users within the Proposed Development and encourage the use of sustainable modes of transport through a comprehensive package of sustainable transport measures.

15.53 A significant net decrease in traffic generated from the Proposed Development would be managed through a significant decrease in parking provision along with the implementation of a Travel Plan, that would set out the broad principles to be adopted to promote sustainable travel and aim to encourage more people to use sustainable modes of transport such as cycling, walking and public transport. The Travel Plan would be promoted and supported by the appointment of a Travel Plan Coordinator and Sustainable Transport Manager who would champion the use of sustainable modes of transport and seek to support a change in modal shift away from single occupied cars.

15.54 Overall, the transport assessment demonstrates that **no significant** transport effects are anticipated during the construction phase of the Proposed Development. During the operational phase of the Proposed Development significant beneficial effects are anticipated due to the substantial net reduction in traffic flows.

Summary of Mitigation Measures and Residual Effects

15.55 **Table 15.1** provides a summary of the mitigation measures proposed, as a result of the assessment process for each of the environmental aspects considered, which have been demonstrated through this ES and can be implemented either through planning conditions or legal agreement.

15.56 The residual effects are those that remain post-mitigation. Each of the technical chapters contained within this ES contains a detailed assessment of the residual impacts in respect of both the construction and operational phases of the Proposed Development.

15.57 The design proposals have evolved with, and been informed by the EIA process, in order to minimise any identified environmental effects as the design has progressed. However, where this has not been possible to fully resolve through the design, within each technical chapter, a range of measures have been incorporated into the scheme to help mitigate potential negative effects.

Table 15.1: Summary of Residual Effects

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Air Quality	Impact of Construction Dust Emission - receptors within 20m of the Site boundary	Major Adverse	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.	Planning Condition	Negligible
	Impact of Construction Dust Emission - receptors within 20m-100m of the Site boundary	Moderate Adverse	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.	Planning Condition	Negligible
	Impact of Construction Dust Emission - receptors within 100-350m of the Site boundary	Minor Adverse	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.	Planning Condition	Negligible
	Impact of Construction Dust Emission - receptors over 350m of the Site boundary	Negligible	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.	Planning Condition	Negligible
	Construction Vehicle Exhaust Emissions	Minor Adverse	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.	Planning Condition	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Air Quality	Construction Plant Exhaust Emissions	Negligible	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.	Planning Condition	Negligible
	Effects of the Development on Local Air Quality	Minor beneficial	None proposed.	N/A	Minor Beneficial
Cultural Heritage	***Mill Road Conservation Area***				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation - Removal of poor-quality structures on site, replacement with high quality design structures, enhancement of landscape and public realm, creation of a clear and active frontage to site ensuring a better integration with the streetscape.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	St Matthew's Church				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	247 Newmarket Road				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Cambridge Gas Company War Memorial, Newmarket Road				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Cultural Heritage	***St Andrews the Less***				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	York Street Terraces (excluding nos. 86-92a even, 98-104 even and 101-111a odd)				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation - Removal of poor-quality structures on site, replacement with high quality design structures, enhancement of landscape and public realm, creation of a clear and active frontage to site ensuring a better integration with the streetscape.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	Ainsworth Street Terraces				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation - Removal of poor-quality structures on site, replacement with high quality design structures, enhancement of landscape and public realm, creation of a clear and active frontage to site ensuring a better integration with the streetscape.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	Stone Street Terraces				
	Visual impact of built form upon the setting	Negligible	Embedded design mitigation - Removal of poor-quality structures on site, replacement with high quality design structures, enhancement of landscape and public realm, creation of a clear and active frontage to site ensuring a better integration with the streetscape.	Design as proposed – approval of the submitted parameter plans	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Cultural Heritage	***Sleaford Street Terraces***				
	Visual impact of built form upon the setting	Negligible	Embedded design mitigation - Removal of poor-quality structures on site, replacement with high quality design structures, enhancement of landscape and public realm, creation of a clear and active frontage to site ensuring a better integration with the streetscape.	Design as proposed – approval of the submitted parameter plans	Negligible
	York Terraces				
	Visual impact of built form upon the setting	Negligible	Embedded design mitigation - Removal of poor-quality structures on site, replacement with high quality design structures, enhancement of landscape and public realm, creation of a clear and active frontage to site ensuring a better integration with the streetscape.	Design as proposed – approval of the submitted parameter plans	Negligible
	33-38 Abbey Walk				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Sturton Street Terraces				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	179 Sturton Street				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Cultural Heritage	***192-198 Sturton Street***				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Milford Street Terraces				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Gwydir Street Terraces				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Edward Street Terraces				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Norfolk Street Terraces				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Norfolk Terrace				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Central Conservation Area				
	Visual impact of built form upon the setting	Moderate-Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Minor Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Cultural Heritage	***Riverside and Stourbridge Conservation Area***				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Kite Conservation Area				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	New Town and Glisson Road Conservation Area				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Castle and Victoria Road Conservation Area				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	West Cambridge Conservation Area				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral
	Jesus College				
	Visual impact of built form upon the setting	Moderate adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Moderate Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Cultural Heritage	***St John's College***				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	University Library				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	Church of Our Lady and the English Martyrs (Roman Catholic)				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed– approval of the submitted parameter plans	Minor Adverse
	Kings College Chapel				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	All Saints Church				
	Visual impact of built form upon the setting	Moderate-minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Moderate-Minor Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Cultural Heritage	***Mill Road Cemetery***				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	Custodian's House, Mill Road Cemetery				
	Visual impact of built form upon the setting	Negligible	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Negligible
	Church of Christ Church				
	Visual impact of built form upon the setting	Moderate adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Moderate Adverse
	Old Cheddar's Lane Pumping Station				
	Visual impact of built form upon the setting	Minor adverse	Embedded design mitigation – High quality design as including the positioning of buildings, height parameters, tones of buildings and flue zones as set out within the Design Codes.	Design as proposed – approval of the submitted parameter plans	Minor Adverse
	Chapel of St Mary Magdalene, Stourbridge Chapel (The Leper Chapel)				
	Visual impact of built form upon the setting	Neutral	N/A	N/A	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Flood Risk, Drainage and Water Resources	**Construction**				
	Increased risk of fluvial flooding due to uncontrolled release of surface water runoff during construction.	Minor adverse	Embedded controls and mitigation within the CEMP to manage surface water runoff. Surface water attenuation and flow control measures to be in place prior to connection of impermeable areas to drainage networks.	Planning Condition	Negligible
	Increased risk of surface water flooding due to uncontrolled release of surface water runoff, or changes to overland flow pathways during construction.	Minor adverse	Embedded controls and mitigation within the CEMP to manage surface water runoff. Surface water attenuation and flow control measures to be in place prior to connection of impermeable areas to drainage networks.	Planning Condition	Negligible
	Increased risk of groundwater flooding, or hindrance to groundwater flow regime, during basement construction.	Minor adverse	Embedded controls and mitigation within the CEMP to manage groundwater within excavations. Basement construction methods to be informed by Ground Investigation and results of groundwater monitoring.	Planning Condition	Negligible
	Water quality impacts from surface-borne pollutants and sediments entering surface water receptors during construction.	Minor adverse	Embedded controls and mitigation within the CEMP to manage surface water quality. Proprietary pollution control measures to be in place prior to connection of impermeable areas to drainage networks.	Planning Condition	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Flood Risk, Drainage and Water Resources	Water quality impacts from spillage or leakage of fuels or chemicals entering surface water receptors during construction.	Minor adverse	Embedded controls and mitigation within the CEMP for storage of fuels and chemicals to minimise the risk of pollution to controlled waters.	Planning Condition	Negligible
	Impact upon foul water network capacity and treatment capacity during construction.	Minor adverse	Sewer connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Anglian Water prior to construction.	Design as proposed	Negligible
	Impact upon potable (mains) water network capacity during construction.	Negligible	Potable water supply connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Cambridge Water prior to construction. Potable water demand during construction partially offset by disconnection of baseline water demand.	N/A	Negligible
	Impact upon local groundwater resources during construction.	Minor adverse	None required - No local groundwater abstraction proposed during construction or as part of the Proposed Development.	N/A	Negligible
	Impact upon regional groundwater resources during construction provided that increased abstraction is not required from strategic supply boreholes.	Negligible	Potable water supply connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Cambridge Water prior to construction. Potable water demand during construction partially offset by disconnection of baseline water demand.	Planning Condition	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Flood Risk, Drainage and Water Resources	Impact upon regional groundwater resources during construction in the event that increased abstraction is required from strategic supply boreholes.	Minor adverse	Potable water supply connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Cambridge Water prior to construction. Potable water demand during construction partially offset by disconnection of baseline water demand. Potential requirement for strategic borehole abstraction to be marginally increased by Cambridge Water to serve Proposed Development.	N/A - strategic mitigation measures to be delivered by Cambridge Water	Minor Adverse
	Completed and Operational Development				
	Increased risk of fluvial flooding due to uncontrolled release of surface water runoff.	Minor adverse	Landscape proposals provide a net reduction in impermeable area coverage post-development. Surface water attenuation and flow control measures, rainwater harvesting, and a suite of SuDS measures are designed to reduce runoff rates post-development and manage climate change impacts.	Design as proposed – approval of the submitted landscape strategy	Minor /Negligible
	Increased risk of surface water flooding due to uncontrolled release of surface water runoff, or changes to overland flow pathways.	Minor adverse	Landscape proposals provide a net reduction in impermeable area coverage post-development. Surface water attenuation and flow control measures, rainwater harvesting, and a suite of SuDS measures are designed to reduce runoff rates post-development and manage climate change impacts.	Design as proposed – approval of the submitted landscape masterplan	Minor Beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Flood Risk, Drainage and Water Resources	Increased risk of groundwater flooding, or hindrance to groundwater flow regime, due to basement structures.	Minor adverse	No mitigation necessary beyond best practice basement construction methods.	N/A	Negligible
	Water quality impacts from surface-borne pollutants and sediments entering surface water receptors.	Minor adverse	Proprietary pollution control, and a suite of SuDS measures, are designed to reduce improve water quality post-development.	Design as proposed – approval of the submitted drainage strategy	Minor Beneficial/ Negligible
	Water quality impacts from spillage or leakage of fuels or chemicals entering surface water receptors.	Minor adverse	No mitigation necessary beyond that set out by existing legislative requirements for storage of fuels and chemicals.	N/A	Negligible
	Impact upon foul water network capacity and treatment capacity.	Minor adverse	Sewer connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Anglian Water prior to construction. Treatment capacity at the local Water Recovery Centre to be incrementally increased by Anglian Water to serve projected growth in Cambridge.	Design as proposed – approval of the submitted drainage strategy	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Flood Risk, Drainage and Water Resources	Impact upon potable (mains) water network capacity.	Negligible	Potable water supply connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Cambridge Water prior to construction. Potable water demand partially offset by disconnection of baseline water demand, rainwater harvesting and reuse. Specification of high efficiency water and sanitary fittings to achieve full WAT01 credits.	Design as proposed – approval of the submitted drainage strategy	Negligible
	Impact upon local groundwater resources.	Negligible	None proposed - No local groundwater abstraction proposed as part of the Proposed Development.	N/A	Negligible
	Impact upon regional groundwater resources provided that increased abstraction is not required from strategic supply boreholes	Negligible	Water supply provided by Cambridge Water without increasing groundwater abstraction and associated potential impacts upon ecological status of WFD water bodies.	Design as proposed	Negligible
	Impact upon regional groundwater resources in the event that increased abstraction is required from strategic supply boreholes prior to the implementation of third party strategic supply measures.	Minor Adverse	Potable water supply connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Cambridge Water prior to construction. Potable water demand partially offset by disconnection of baseline water demand, rainwater harvesting and reuse. Specification of high efficiency water and sanitary fittings to achieve full WAT01 credits. Prior to the implementation of a strategic water transfer scheme by Cambridge Water	Design as proposed	Minor Adverse

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Flood Risk, Drainage and Water Resources	Impact upon regional groundwater resources in the event that increased abstraction is required from strategic supply boreholes prior to the implementation of third party strategic supply measures.	Minor Adverse	to enhance potable water supply capacity to Cambridge resulting in an increase in groundwater abstraction and associated potential impacts upon ecological status of WFD water bodies.	Design as proposed	Minor Adverse
	Impact upon regional groundwater resources in the event that increased abstraction is not required from strategic supply boreholes and strategic water supply can be delivered via the implementation of third party strategic supply measures.	Minor adverse	Potable water supply connection application(s), informed by impact studies where appropriate, to be submitted to and approved by Cambridge Water prior to construction. Potable water demand partially offset by disconnection of baseline water demand, rainwater harvesting and reuse. Specification of high efficiency water and sanitary fittings to achieve full WAT01 credits. Implementation of a strategic water transfer scheme by Cambridge Water to enhance potable water supply capacity to Cambridge without increasing groundwater abstraction and associated potential impacts upon ecological status of WFD water bodies will mitigate potential effects of the Proposed Development.	N/A - Strategic mitigation to be provided by Cambridge Water	Negligible

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Ground Conditions and Contamination	Potential for impacts to off-site users due to inhalation of contaminated dust emissions during construction works	Minor adverse	CEMP prepared for the site including measures to prevent dust emissions from exposed or stockpiled soils during the works	Planning Condition	Neutral
	Potential for impacts to off-site users due to direct contact with surface run-off from exposed or stockpiled soils during construction works	Minor adverse	CEMP prepared for the site including measures to prevent run-off from exposed or stockpiled soils during the works	Planning Condition	Neutral
	Potential impacts to ground workers and construction workers during demolition and construction from direct contact, ingestion and inhalation of potentially contaminated exposed shallow soils and groundwater	Neutral	No mitigation necessary beyond that set out by existing legislative requirements	N/A	Neutral
	Potential impacts to ground workers and construction workers during demolition and construction from inhalation of vapours emitted from contaminated soils	Major adverse	Further ground investigation will fully quantify the potential vapour regime at the Site and measures necessary to protect construction workers against vapour accumulation.	Planning Condition	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Ground Conditions and Contamination	Potential for impacts to these surrounding groundwater receptors from lateral or vertical migration of existing contamination in shallow groundwater due to increased rainfall infiltration while hardstanding cover is not present across the Site	Minor adverse	Further ground investigation will quantify the potential for hydrocarbon contamination to be mobilised off-site, and inform appropriate remediation or mitigation measures if necessary.	Planning Condition	Neutral
	Potential for impacts to shallow soils, the secondary A aquifer in the River Terrace Gravels and principal aquifers in the West Melbury Formation and Lower Greensands Formation from leaks or spills of fuels or chemicals brought on-site to construct the development	Min adverse	CEMP prepared for the Site will include measures to minimise the potential impacts to controlled waters from storage of fuels or chemicals during redevelopment	Planning Condition	Neutral
	Potential for impacts to future Site users via direct contact with contaminated Made Ground in soft landscaped areas;	Minor adverse	New soft landscaping installed in an appropriate thickness of imported, certified clean topsoil	Design as proposed - approval of Landscaping Plans	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Ground Conditions and Contamination	Potential impacts to future structures from vapour ingress into the proposed development, arising from potentially contaminated soils and groundwater;	Major adverse	Further ground investigation will fully quantify the potential for vapour emissions from soils or groundwater to affect new buildings, which will inform the mitigation measures necessary to break this contaminant linkage.	Planning Condition	Neutral
	Potential impacts to the off-site shallow secondary A aquifer in the River Terrace Gravels, and principal aquifer in the West Melbury Formation from shallow groundwater contamination		No mitigation necessary	N/A	Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Townscape and Visual	**Townscape**				
	Introduction of the Proposed Development in the Industrial – Railway Corridor Cambridge Character Type	Moderate Beneficial	N/A	N/A	Moderate Beneficial
	Introduction of the Proposed Development in the residential Character Type: Post 1900 Suburb	Moderate Beneficial	N/A	N/A	Moderate Beneficial
	Introduction of the Proposed Development in the Cambridge skyline	Moderate adverse	Progress the reserved matter in line with the submitted DAS and design codes to achieve high-quality design and a final proposal aligned to the AVR3 illustrative visualisations.	Design as proposed – approval of the submitted parameter plans, DAS and design codes	Moderate Beneficial
	Introduction of the Proposed Development in the setting of green open spaces and setting of the Green Belt	Minor (neutral)	N/A	N/A	Minor Neutral

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Townscape and Visual	Introduction of the Proposed Development in the setting of PRoW	Moderate – Minor (Neutral)	N/A	N/A	Moderate / Minor Neutral
	Introduction of the Proposed Development in the setting of the Conservation Area	Moderate beneficial	N/A	N/A	Moderate beneficial
	Visual				
	Introduction of the Proposed Development in the visual experience of visitors to Castle Hill Mound Scheduled Monument	Major- Moderate adverse	Progress the reserved matters in line with the submitted DAS and design codes to achieve high-quality design and a final proposal aligned to the AVR3 illustrative visualisations.	Design as proposed – approval of the submitted parameter plans, DAS and design codes	Major-Moderate Beneficial
	Introduction of the Proposed Development in the visual experience of Ramblers on Coldham's Common	Moderate adverse	Progress the reserved matters in line with the submitted DAS and design codes to achieve high-quality design and a final proposal aligned to the AVR3 illustrative visualisations.	Design as proposed – approval of the submitted parameter plans, DAS and design codes	Moderate Beneficial
	Introduction of the Proposed Development in the visual experience of Ramblers on Fen Ditton and river towpath	N/A	N/A	N/A	N/A
	Introduction of the Proposed Development in the visual experience of Ramblers on Redmeadow Hill	Moderate – Minor adverse	Progress the reserved matters in line with the submitted DAS and design codes to achieve high-quality design aid integration within the visual context and a final proposal aligned to the AVR3 illustrative visualisations.	Design as proposed – approval of the submitted parameter plans, DAS and design codes	Moderate – Minor (neutral)

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Townscape and Visual	Introduction of the Proposed Development in the visual experience of Drivers on Wort's Causeway and Limekiln Road	Moderate adverse	Progress the reserved matters in line with the submitted DAS and design codes to achieve high-quality design and a final proposal aligned to the AVR3 illustrative visualisations.	Design as proposed – approval of the submitted parameter plans, DAS and design codes	Moderate Neutral
	Introduction of the Proposed Development in the visual experience of Ramblers on Little Trees Hill	Moderate adverse	Progress the reserved matters in line with the submitted DAS and design codes to achieve high-quality design and a final proposal aligned to the AVR3 illustrative visualisations.	Design as proposed – approval of the submitted parameter plans, DAS and design codes	Moderate Neutral
	Introduction of the Proposed Development in the visual experience of Residents of the adjacent residential area to the south and west, including within the Mill Road Conservation Area	Minor neutral	N/A	N/A	Minor Neutral
	Introduction of the Proposed Development in the visual experience of Pedestrians on Mill Road Bridge	Minor beneficial	N/A	N/A	Minor beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Noise and Vibration	Construction noise	Negligible to Moderate Adverse	Employment of Best Practicable Means to reduce noise levels at source. Measures can be outlined within a CEMP.	Planning Condition	Negligible -Minor Adverse
	Construction traffic noise	Negligible	Employment of Best Practicable Means to reduce noise associated with construction traffic. Measures can be outlined within a CEMP.	Planning Condition	Negligible
	Construction vibration	Minor Adverse	Employment of Best Practicable Means to reduce vibration levels at source. Measures can be outlined within a CEMP.	Planning Condition	Minor Adverse / Negligible
	Operational noise from building services plant	Minor Adverse	Plant noise limits and localised attenuation of equipment.	Planning Condition	Minor Adverse
	Operational noise from events	Minor Adverse	Noise limits and implementation of a Noise Management Plan.	Planning Condition	Minor Adverse
Socio-Economics	Displacement of existing workers and businesses	Moderate / minor adverse Not Significant	No mitigation.	N/A	Moderate / minor adverse Not Significant
	Operational employment generation (sub regional)	Negligible	No mitigation.	N/A	Negligible
	Operational employment generation (district)	Minor beneficial	No mitigation.	N/A	Minor beneficial
	Local jobs and skills	Moderate / Minor Beneficial	Commitments by Applicant secured via S106 Agreement.	S106 Agreement	Moderate Beneficial
	Additional contribution towards commercial floorspace	Major/moderate beneficial	No mitigation.	N/A	Major / Moderate Beneficial
	Impact on retail	Minor beneficial	No mitigation.	N/A	Minor Beneficial

ENVIRONMENTAL ASPECT	DESCRIPTION OF EFFECT	SIGNIFICANCE	MITIGATION MEASURES PROPOSED	MECHANISM OF CONTROL/ DELIVERY	RESIDUAL EFFECT
Socio-Economics	Additional expenditure supported by operational workers	Minor Beneficial	No mitigation.	N/A	Minor Beneficial
	Provision of open space and public realm	Moderate / Minor Beneficial	No mitigation.	N/A	Moderate Minor Beneficial
	Impact on leisure facilities	Negligible	No mitigation.	N/A	Negligible
	Impact on housing need and affordability	Minor adverse	No mitigation.	N/A	Minor adverse
Transport	Impact of Construction Traffic	Minor adverse	The development of a comprehensive CEMP by the applicant would ensure that any potential adverse traffic and transport impacts during the temporary demolition and construction phases are mitigated and carefully monitored. The CEMP would be agreed / approved by Cambridgeshire County Council.	Planning Condition	Negligible
	Impact of Operational Traffic	Major beneficial	The restriction and control of car parking is a key factor in encouraging people to use sustainable modes of transport. A comprehensive suite of sustainable transport measures are proposed within the Travel Plan which include on and off-site measures to support the use of non-car modes.	Measures within Travel Plan will be secured by a s106 Agreement	Major Beneficial

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