

13. Summary of Mitigation and Residual Effects

Introduction

- 13.1 Both the EIA and the design evolution have been an iterative process. Therefore, many measures to mitigate potential adverse environmental effects have been incorporated into the design of the Proposed Development in order to avoid, reduce or offset negative changes. These measures are 'embedded mitigation' and are presented in Chapter 5: The Proposed Development. They have been accounted for in each of the technical assessments, where relevant (see Chapters 6 - 12).
- 13.2 The residual effects of the Proposed Development have been assessed as part of the EIA and can be described as the effects which remain after the implementation of the embedded and any additional proposed mitigation measures. The residual effects have been identified for each category in the preceding technical chapters (Chapters 6 - 12) and are summarised in Table 13.1. It is expected that the appropriate mitigation measures will be secured through appropriately worded planning conditions. Reference should be made to each technical chapter for the definition of the significance of the effect stated.
- 13.3 Following Table 13.1 is a discussion of the residual effects and a conclusion.

Table 13.1: Summary of Mitigation and Residual Effects

Category	Stage of Development	Description of Potential Effect inc. Significance	Mitigation Measures	Residual Effects
Traffic and Transport	Construction	Severance	CEMP, no further mitigation required.	Negligible, not significant.
		Pedestrian delay		Negligible, not significant.
		Pedestrian Amenity		Negligible, not significant.
		Fear and intimidation		Negligible, not significant.
		Driver delay		Negligible, not significant.
		Highway safety		Negligible, not significant.
	Operational	Severance	Travel plan, cycle parking, EVCP and internal pedestrian / cycle routes	Negligible, not significant.
		Pedestrian delay		Negligible, not significant.
		Pedestrian Amenity		Negligible, not significant.
		Fear and intimidation		Negligible, not significant.
		Driver delay	Mode Share targets to reduce road usage. Maximising the number of local trips by walking, cycling. Promoting work from home and promoting use of public transport.	Negligible, not significant.
		Highway safety	Travel plan, cycle parking, EVCP and internal pedestrian / cycle routes	Negligible, not significant.
Air Quality	Construction	Dust Soiling	CEMP	Not Significant
		Human Health		Not Significant
		Traffic	CEMP and Construction Logistics Plan	Not Significant

Category	Stage of Development	Description of Potential Effect inc. Significance	Mitigation Measures	Residual Effects
	Operational	Traffic	Travel planning / Sustainable transport links. Network of pedestrian and cycle routes throughout the proposed development. Provision of electric vehicle charging. Framework travel plan to promote and stimulate modal shift. Travel Plan	Not Significant
Noise and Vibration	Construction	Vibration from Demolition and Construction. Temporary, short term. Minor adverse to negligible. Not Significant.	CEMP	Minor to Negligible (Not significant)
		Noise from enabling and construction activities. Temporary, short term. Minor adverse to negligible. Not Significant.		
		Noise from construction vehicles on the wider road network (daytime only). Temporary, short term. Negligible. Not significant.	None required	Negligible (Not significant)

Category	Stage of Development	Description of Potential Effect inc. Significance	Mitigation Measures	Residual Effects
	Operational	Noise from vehicles on the wider road network. Permanent not significant.	None required	Negligible (Not significant)
		Noise from building services plant and equipment. Permanent not significant.		
Heritage	Construction	Change in the setting of heritage assets. Slight adverse (not significant).	The Site will be secured using hoardings/fencing. Construction noise will be managed and reduced as far as possible. Provision of a CEMP.	Slight adverse (not significant)
	Operational	Change in the setting of heritage assets. Neutral (not significant).	The scale and mass of the Proposed Development has been stepped down towards the northwest corner of the Site closest to the assets.	Neutral (not significant)
Contaminated Land and Ground Conditions	Construction	Excavation of potentially contaminated soils. Negligible.	Works to be completed in line with the Remediation Strategy. Provision of CEMP	Negligible
		Controlled Waters. Negligible.		
	Operational	Residents exposed to contaminated soils in gardens and landscaped areas. Negligible.	Building will be designed according to CIRIA 665 and BS8486 which will prevent ingress of ground gas. Cover systems to be designed in line with industry best	Negligible

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			practice. Mitigation measures to be validated in line with warranty providers (NHBC/LABC) requirements.	
Climate Change	Construction	Greenhouse gas emissions contributing to global warming and climate change. Neutral not Significant	Use of environmentally friendly materials that are locally sourced where possible	Neutral not Significant
	Operation	Greenhouse gas emissions contributing to global warming and climate change. Neutral not Significant	Energy efficient build standard and Solar PV	Neutral not Significant
Ecology	Construction	Direct impacts on the designated sites and their qualifying features.	None	Significant adverse effects at all scales / levels are reasonably discounted
		Direct impacts on Kirkby Brook LWS due to risk of sedimentation and pollution.	CEMP	Negligible magnitude over the short term (construction period only). Not significant at the county level.
		Plantation woodland, individual trees and relevant tree lines	Maintenance of tree protection measures throughout the construction period.	Negligible. No significant effect at the local level.

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		Removal of all mixed scrub, neutral grassland, relevant tree lines and associated ecological function	Quality of compensatory new habitats to be secured by Long-term Landscape and Ecological Management Plan.	Permanent adverse, direct effect of a minor magnitude. No significant effect at the local scale.
		Direct effects on nesting birds during vegetation clearance.	CEMP. Reinstatement of landscape planting and installation of bird boxes, including provisions for Priority Species, at the properties during the construction period. Quality of compensatory new habitats to be secured by Long-term Landscape and Ecological Management Plan.	Negligible. No significant effect at the local level.
		Direct effects on water vole and their habitats as the surface water outfall at Kirkby Brook is installed.	CEMP. Appropriate Natural England licence to be in place, as needed.	Negligible. No significant effect at the local level.
		Direct effect on roosting bats during removal of trees at tree lines D and part of G.	CEMP. Actions include installation of bat boxes to ensure no net loss of opportunities for use by roosting bats.	Negligible. No significant effect at the local level.

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		Vegetation removal and reduction in cover of trees will reduce the suitability of the site for use by foraging bats.	Implementation of appropriate lighting strategy during construction period. Quality of compensatory new habitats to be secured by Long-term Landscape and Ecological Management Plan.	Negligible. No significant effect at the local level.
Ecology	Operation	Recreational pressures on the off-site statutory designated sites and their features of special interest in the wider area.	Additional mitigation to include the preparation and distribution of a Homeowners' Pack / Advisory Leaflet and signage to advise residents of the value of the designated sites, a 'responsible user code' and to advise on alternative areas for dog walking and recreation.	Negligible. No significant effect at any level.
		Operation of the residential site will direct the surface water to Kirkby Brook and there is a risk of pollution.	Drainage system to be maintained appropriately.	Negligible. No significant effect at any level.
		Disturbance of habitats used by	Increased diversity of habitats for use by	Beneficial effects for

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		nesting birds owing to inappropriate behaviour such as dogs off leads. Increase in area / length of hedgerows, shrubs and trees suitable for use by passerine bird species.	nesting birds, including availability of opportunities for species such as swift. Appropriate management of habitats for nesting birds.	specific species owing to an increase in habitat availability.
		Adverse effects on roosting bats / suitability of habitats for use by roosting bats owing to inappropriate lighting strategy.	Preparation and implementation of a sensitive lighting strategy, prepared in accordance with current guidelines. Installation of bat access panels at the new dwellings	Negligible. Not significant. Beneficial effects for roosting bats as a result of creation of opportunities for roosting.

Summary and Conclusions

- 13.4 A comprehensive assessment of the potential effects of the construction and operational phases of the proposed development has been undertaken as part of this EIA to establish the environmental changes associated with the development.
- 13.5 The proposed development has been designed in accordance with the findings and recommendations of the EIA. Any adverse effects identified through the assessment have been minimised as far as possible through the design process or the application of appropriate mitigation measures. Those effects associated with the construction activities will be controlled by a CEMP.

- 13.6 Effects during demolition and construction period are considered to be short term negligible for the majority of impacts which are not significant. Some slightly adverse effects are anticipated with regards to the potential effects on heritage assets, but these are also deemed not significant as well as being short term. Minor to negligible adverse effects are also anticipated with regards to noise and vibration during the construction phase though these are not significant.
- 13.7 Potential environmental impacts of the completed development are predominantly negligible which are not significant. There are some slight or minor adverse impacts identified at the construction phase related to Noise and Heritage however, these are short term and deemed to be not significant.
- 13.8 The proposed development constitutes a sustainable, high-quality development which accords with national and local planning policy. The development will create 807 energy efficient new homes, including 81 affordable homes and 10 bungalows. It will create jobs throughout both the construction phase and residential phase. The completed development will bring about a sympathetically designed residential development that contributes to the economic, social and environmental aspirations of KMBC.