



Appendix 13.1: Mitigation Summary Table

Summary of Proposed Mitigation Measures

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Vol I Chapter 4: Socio-Economics		
Construction employment (direct and indirect) (Construction)	Provision of local apprenticeship schemes, use of local supply chain and businesses. Examples of such measures may include providing full and fair construction employment opportunities, training, and educational opportunity for residents; encouraging procurement opportunities for local businesses to source products and services locally where possible and practical; and establishing links with local businesses to offer training and employment opportunities via work experience and apprenticeship schemes.	To be secured via suitably worded planning condition.
Health and wellbeing (Construction)	A Construction Environmental Management Plan (CEMP) will set out best practice measures of environmental control during construction to reduce impacts of construction dust which can have adverse health impacts. Measures include vehicle wheel cleaning, noise and vibration, contamination and pollution incident control, protection of surface and ground water resources, and dust, smoke, odour, and exhaust emissions.	To be secured via suitably worded planning condition.
Increased demand for early years education; Increased demand for primary education provision;	The Proposed Development is to deliver planning contributions to the relevant social infrastructure to accommodate the future residents on Site within the Wider Impact Area. The final planning contributions will be calculated and agreed with Gravesham Borough Council (GBC) as part of the determination phase.	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Increased demand for secondary education provision; and Increased demand for healthcare provision. (Operation)		
Vol I Chapter 5: Transport and Access		
No additional mitigation is proposed.		
Vol I Chapter 6: Air Quality		
Dust Nuisance; and PM ₁₀ Health Impacts. (Construction)	Mitigation measures follow the Institute of Air Quality Management guidance. These measures will be incorporated into a Dust Management Plan and approved by GBC prior to commencement of any work on-Site.	To be secured via suitably worded planning condition.
NO ₂ , PM ₁₀ , and PM _{2.5} Concentrations; and N-deposition and airborne NO _x . (Operation)	In accordance with the advice provided in the Kent & Medway Guidance, mitigation measures will be implemented to reduce operational emissions. The following mitigation measures will be included within the Proposed Development: • 1 Electric Vehicle charging point per dwelling with dedicated parking or 1 charging point per 10 spaces (unallocated parking); • A proposed bus route thorough the Site; • Travel Pack will be produced promoting alternative modes of transport to be distributed to all residents staff and pupils / parents; • Provision of Travel Information Boards; • Travel surveys will be undertaken to monitor travel behaviour; • Improved cycle paths to link cycle network;	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
	• Adequate provision of secure cycle storage; and • Travel plan including mechanisms for discouraging high emission vehicle use and encouraging the uptake of low emission fuels and technologies.	
Vol I Chapter 7: Noise and Vibration		
Construction Noise; and Construction Vibration. (Construction)	• To control the impact of noise during construction of the Proposed Development, contractors will ensure that works are carried out in accordance with best practicable means as described in BS 5228 comprising of the following: • Where possible, 'silenced' plant and equipment will be used; • Where vehicles are standing for a significant period of time, engines will be switched off; • Acoustic enclosures will be fitted where possible to suppress noisy equipment; • Plant will operate at low speeds, where possible, and incorporate automatic low speed idling; • Where possible, electrically driven equipment will be selected in preference to internal combustion powered, hydraulic power in preference to pneumatic and wheeled in lieu of tracked plant; • All plant will be properly maintained (greased, blown silencers replaced, saws kept sharpened. Teeth set and blades flat, worn bearings replaced etc);	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
	• Consideration will be given to temporary screening or enclosures for static noisy plant to reduce noise emissions and plant should be certified to meet any relevant EC Directives; • All contractors will be made familiar with the guidance in BS 5228 (Parts 1 & 2) which will form a pre-requisite of their appointment; and • Early and good public relations with the adjacent tenants and occupants of buildings will also reduce the likelihood of complaints. These general measures to control construction noise should be incorporated within the CEMP and/or detailed in construction method statements. By adopting the recommended best practicable means, construction noise levels can typically be reduced by 10 dB(A).	
Ambient Noise (Operation)	Suitable glazing and ventilation options should be adopted at dwellings overlooking the railway and roads in order to achieve the BS 8233 and World Health Organisation criteria. Typical insulated double glazing and attenuated ventilation is likely to suitably reduce noise levels where dwellings are screened by the proposed layout. Any ventilation should allow for sufficient airflow whilst maintaining the integrity of the façade with regard to noise insulation. Exact requirements can be identified through the progression of the detailed development layout. Examples of façade mitigation include acoustic air bricks, trickle ventilation and mechanical ventilation. Passive or mechanical systems allow for	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
	sufficient airflow whilst maintaining the integrity of the façade with regard to noise insulation. Screening may be required to garden areas. The requirement for this would be determined during detailed design. However, it should be noted that BS 8233 indicates that the guidelines are not always achievable and that, provided the Proposed Development is designed to mitigate external noise levels as far as practicable, development should not be prohibited.	
Vol I Chapter 8: Hydrology, Flood Risk and Drainage		
Silt pollution and spillage incidents (Construction) Oil/chemical spillage (Construction)	Adherence to the CEMP, including: • Outlets (to infiltration features) protected with geotextile or straw bales; • Action plans to protect groundwater from spillages; • Pumped discharges for dewatering to be filtered through a silt interceptor or via temporary settlement basins; • Storage and filling points etc for oils, fuels or chemicals will be sited on impervious bases in a bunded compound with sump; • Tanks will be double-bunded, secured and sited away from drainage systems; • Phasing of earthworks and seeding coordinated to limit the duration that bare soils are exposed; • Temporary silt fencing installed at the bottom of slopes and stockpiles;	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
	• Use of biodegradable erosion control matting along above-ground flow routes; and • Regular inspections of all pollution control measures. Additional measures may be required following the intrusive site investigations and preparation of any remediation strategy required to address any identified contamination sources.	
Increased sewer flood risk downstream (Operation)	Off-site upgrades to the Southern Water wastewater network may be required to serve the completed development.	Any network improvements required would be carried out by Southern Water.
Vol I Chapter 9: Archaeology		
Damage/loss of prehistoric remains; Damage/loss of Roman remains; Damage/loss of Medieval remains; and Damage/loss of post-medieval remains. (Construction)	If sensitive remains are found to be present during the evaluation, a programme of archaeological mitigation may be necessary prior to construction. The method statements, or Written Scheme of Investigation, detailing the archaeological site investigation, and any subsequent mitigation, would be developed in consultation with Kent County Council , and submitted against the relevant condition followed by the results of the work. If sensitive archaeological remains are encountered, the assessment, publication and archiving of the results may also be required.	To be secured by an appropriately worded pre-commencement condition.
Vol I Chapter 10: Ecology		
Habitats: Habitat Loss – Bramble scrub;	A Landscape and Ecology Management Plan (LEMP) will be produced to ensure that the existing and proposed habitats are maintained to maximise	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Habitat Loss – Hedgerows; and Habitat Loss – Trees. (Construction)	their value for biodiversity in the long-term, whilst managing potential conflicts with other objectives for landscape and visual and safety requirements. Proposals include: • Creation and enhancement of scrub habitat and hedgerows implementation of appropriate management to ensure maximum benefit for a range of floral and faunal species. • Planting of new trees and implementation of appropriate management to ensure maximum benefit for a range of floral and faunal species. A sensitive lighting strategy will be developed and implemented to ensure the integrity of the retained and created habitats is maintained and to ensure they continue to be suitable to support protected and notable species sensitive to light (such as badger, bats, birds, dormice, and hedgehog).	
Habitats: Fragmentation; Physical Disturbance; and Contamination. (Construction)	LEMP proposals include: • Creation and enhancement of habitats to provide greater connectivity to the wider landscape. • Best practice pollution guidelines adhered to throughout works, provision of attenuation features to prevent runoff and pollution. • Best practice construction methods, provision of diverse, wildlife-friendly planting to benefit of a range of wildlife. Attenuation features provide long-term contamination prevention.	To be secured via suitably worded planning condition.
Protected and Notable Species (Badger): Habitat Loss; Fragmentation;	Detailed mitigation strategies as set out below for protected and notable species within the Site will be set out within an Ecological Mitigation Strategy (EMS), or similar. Proposals include: • Enhancement and creation of woodland, grassland and scrub habitats will provide a native planting scheme on-Site combined	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Mortality; and Physical Disturbance. (Construction)	with the phased working and restoration of the Site throughout the construction period. • Enhancement and creation of woodland, grassland and scrub habitats will provide increased connectivity between the Site and wider landscape. • Demarcation of a 30m buffer zone in which no construction or access will occur. Protection of on-Site setts from development activities. Sett closure licence if required and best practice construction measures. • Demarcation of a 30m buffer zone around setts to be protected from any disturbance impacts inclusive of light, noise, vehicular access etc. Sensitive lighting scheme, including directional lighting and no lighting of retained and created habitats and setts.	
Protected and Notable Species (Bats): Habitat Loss; Fragmentation; Mortality; and Physical Disturbance. (Construction)	EMS proposals include: • The inclusion of a range of bat box designs within any retained habitat (trees) and integrated into the new buildings would increase the Site's potential post development for roosting bats. Enhancement and creation of woodland, grassland and hedgerow habitats will provide a native planting scheme on-Site combined with the phased working and restoration of the Site throughout the construction period. • Enhancement and creation of woodland, grassland and hedgerow habitats will provide increased connectivity between the Site and wider landscape. • Mitigation measures to be followed for the felling of four trees assessed as Further Assessment Required. • Sensitive lighting scheme, including directional lighting and no lighting of retained and created habitats	To be secured via suitably worded planning condition.
Protected and Notable Species (Birds): Habitat Loss / Mortality;	EMS proposals include:	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Fragmentation; Physical Disturbance; (Construction)	• Creation of new hedgerow, woodland, scrub and grassland areas. Skylark mitigation area to be created. Timings of works to avoid sensitive periods for breeding birds. • Enhancement and creation of woodland, grassland and scrub habitats will provide increased connectivity between the Site and wider landscape. • Timing of works to avoid sensitive periods for breeding birds.	
Protected and Notable Species (Dormice): Habitat Loss / Fragmentation / Mortality; and Physical Disturbance. (Construction)	EMS proposals include: • Creation of new hedgerow and woodland areas with a focus on dormouse food species such as bramble, hazel and honeysuckle will increase suitable habitats within the Site and increase connectivity. Timing of works to avoid sensitive periods for dormouse. Works under supervision and under Natural England mitigation licence. • Timing of works to avoid sensitive periods for dormouse. Works under supervision and under Natural England mitigation licence.	To be secured via suitably worded planning condition.
Protected and Notable Species (Reptiles): Habitat Loss and Mortality; Fragmentation; and Physical Disturbance. (Construction)	EMS proposals include: • Creation and enhancement of grassland and scrub habitats with appropriate management measures. Supervision of works under an Ecological Clerk of Works (ECoW) and during appropriate timings. • Creation and enhancement of grassland and scrub habitats to improve connectivity with the Site and surrounding landscape. • Timing of works to avoid sensitive periods for reptiles. Supervision of works under an ECoW.	To be secured via suitably worded planning condition.
Thames Estuary and marshes Ramsar, the Thames Estuary and Marshes SPA and the South Thames Estuary and	Inclusion of significant areas of green space, designated dog parks, footpaths and travel routes.	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Marshes SSSI. – Recreational Pressures North Downs Woods SAC, Shorne and Ashenbank Woods SSSI and North Kent Woods and Downs NNR – Recreational Pressures (Operation)		
Non-statutory designated sites – Recreational Pressures (Operation)	Inclusion of significant areas of green space, designated dog parks, footpaths and travel routes	To be secured via suitably worded planning condition.
Habitats: Contamination; and Recreational Pressures / Disturbance. (Operation)	Signage, designated footpaths and travel routes, provision of bins, restricted access to sensitive habitats	To be secured via suitably worded planning condition.
Protected Species (Badger, Bats, Birds, Dormice and Reptiles): Disturbance and Mortality (Operation)	Designated areas of green space, enhanced to encourage use by wildlife; intensive management of habitats within built up areas to discourage use; restricted access for people to sensitive habitats (such as woodland); designated footpaths through habitats; signage	To be secured via suitably worded planning condition.
Vol I Chapter 11: Built Heritage		
General construction activities (visual, noise, dust, vibration) 1. Hook Green Conservation Area 2. Norwood Lane 3. Sole Street Group 4. Camer Group	Adherence to the CEMP, including best practice standards for controlling noise, dust, vibration, and visual intrusion. Standard management approaches such as the use of hoarding, restricted working hours, and designated construction routes will be applied to limit any temporary effects on nearby heritage assets and their settings.	To be secured via suitably worded planning condition.
2. Norwood Lane	Embedded landscaping measures including provision for areas of landscaped open space / buffers from the asset to preserve its immediate setting and screening boundary planting.	To be secured via suitably worded planning condition.

Effect	Mitigation and Monitoring Strategy	Delivery Mechanism
Introduction of new development in proximity of this asset.		
4. Camer Group Introduction of new development in proximity of this asset. Change within the immediate context of this asset.	Landscape Buffer area to Camer Road including retained hedgerow and additional planting.	To be secured via suitably worded planning condition.
Vol I Chapter 12: Landscape and Visual		
On completion, the landscape proposals would be monitored through the actions identified in the Landscape Maintenance and Management Plan.		