RiverOak Strategic Partners

2.5
Register of Environmental Actions and Commitments

TR020002/APP/2.5

Project Name: Manston Airport Development Consent Order

Regulation: Regulation 5(2)(q) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, as amended

Date: July 2018

SCHEDULE OF ENVIRONMENTAL COMMITMENTS

CONSTRUCTION PHASE

Impact	Mitigation proposed (location where applicable)	DCO Reference
Local Road Network (Construction Phase) Dust soiling of the local road network as a result of trackout of dust and mud from vehicles entering and leaving the site during the construction phase (Table 6.6)	▶ As part of the Construction Environmental Management Plan (CEMP) the contractor will produce and implement a Dust Management Plan (DMP); this will include details of measures to identify and reduce the risk, monitoring any dust and identify appropriate clean-up measures. Monitoring will be agreed with the Local Authority in accordance with best practice for construction projects. This will include use of dust gauges at suitable residential receptors. Osiris monitoring of Particulate Matter (PM) may be used during more intense periods of construction activity (e.g. the initial construction period in the run-up to opening). ▶ Measures will include the use of a wheel wash, covering of all loads entering/leaving the site, and the use of water-assisted dust sweeper(s).	Developer requirement / condition (requiring a CEMP)
Human health and ecological receptors (Construction Phase) Potential effect on human health and ecological receptors from dust during the construction phase	▶ As part of the CEMP the contractor will produce and implement a DMP this will include details of measures to identify and reduce the risk, monitoring any dust and identify appropriate clean-up measures. Monitoring will be agreed with the Local Authority in accordance with best practice for construction projects. This will include use of dust gauges at suitable residential receptors. Osiris monitoring of PM may be used during more intense periods of construction activity (e.g. the initial construction period in the run-up to opening). ▶ Measures will include locating stockpiles away from site boundary/receptors, covering or damping down stockpiles, stockpile maintenance/management, and removal of materials from site.	Requirement 6 (CEMP)
Human health and ecological receptors (Construction Phase) Potential effect on human health and ecological	▶ As part of the CEMP the contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development. ▶ Measures will include avoiding the use of diesel or petrol-powered generators and use mains electricity or battery-powered equipment where practicable; ensuring all vehicles switch off engines when stationary - no idling vehicles.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
receptors from air quality effects from Non-Road Mobile Machinery, and vehicles during the construction phase		
Habitats Habitat Loss	▶ Compensation through off-Site habitat creation at the c. 36ha land parcel 1362, the details of habitat creation measures for all species that could potentially be found on site are detailed in the Mitigation and Habitat Creation Plan (MHCP) at Appendix 7.13.	Requirement 8 (Ecological mitigation)
Potential effects on birds due to damage or destruction of active nests Legal non-compliance	▶ Any removal of vegetation or buildings with the potential to support nesting birds will, wherever possible, be undertaken outside the bird nesting season (March to August inclusive) to ensure compliance with the WCA 1981 (as amended). ▶ If any clearance work has to be undertaken during the main breeding season, it will only be undertaken after a qualified ecologist has confirmed that the feature does not support any nesting birds. In view of this, no potential adverse effects are anticipated.	Requirement 6 (CEMP)
Bats Disturbance to/loss of foraging, commuting habitat for bats Potential disturbance to roosts, mortality/injury to individuals; habitat loss	▶ A method statement and tool-box talk would be prepared that would include details of pre-construction verification surveys for bats, describing the approach that would be followed to avoid contravening the WCA1981 (as amended) (WCA) and The Habitats Regulations. Where required, this would involve obtaining an EPS mitigation licence through NE with respect to development. ▶ The method statement would also reflect the requirements of the MHCP (Appendix 7.13) describing habitat enhancements to be implemented as part of the Proposed Development. Due to the nature of the development much of the Site will be unsuitable for bats once operational with extensive Site and building lighting. Consequently, compensation for foraging/habitat/roost loss and any enhancements (including the installation of bat barns/boxes) are provided off-Site within land parcel 1362.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Breeding birds Disturbance to/loss of foraging habitat/breeding sites/shelter	▶ Off-Site habitat provision in the c.36ha land parcel 1362 is detailed in the MHCP at Appendix 7.13 of the ES for ground nesting farmland birds e.g. skylark and grey partridge. Created habitats, improving the quality of that lost on Site, to have particular species-specific measures and managed for farmland birds.	Requirement 6 (CEMP) Requirement 8 (Ecological mitigation)
Reptiles Kill/injure reptiles	▶ Method statement and tool box talks are required to avoid contravening the WCA. ▶ Removal of suitable habitat would be designed to avoid the risk of injury to reptiles, through measures such as timing ground works to avoid the reptile hibernation period and the gradual removal of habitat. ▶ As detailed in the MHCP, any reptile populations in the remaining unsurveyed areas (c.4ha) will be captured and translocated to suitable habitats (e.g. with hibernacula, compost heaps, log/brash piles and basking areas) on Site (south of the existing southern perimeter fence) and off-Site (land parcel 1362).	Requirement 6 (CEMP)
Terrestrial invertebrates Disturbance to/loss of foraging habitat/breeding sites	▶ Compensation through habitat treatments on Site (e.g. maintenance of a stressed vegetation community along runway edges by permitting short vegetation to grow on shallow substrate upon runway surface), and habitat creation within land parcel 1362 as described in the MHCP at Appendix 7.13. Created habitat will be specifically designed with diverse features to encourage invertebrates (e.g. including features typical of open mosaic habitat.)	Requirement 6 (CEMP) Requirement 8 (ecological mitigation)
Barn owl Disturbance to nesting birds	▶ Wherever possible, construction within 200m of barn owl nest sites would be timed to avoid breeding season (that is March – December inclusive). If this is not possible, nest boxes would be capped outside the breeding season prior to construction and new alternative nest sites would be installed off-Site at sufficient distance to prevent birds using the operational Site.	Requirement 6 (CEMP)
All	▶ Noise control measures have been assessed in **Chapter 12**. During the construction phase these would include maintaining buffer distances to sensitive receptors, use of best technology, dampers on vibrating or noise emitting equipment, timing of works.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Damage to species through disturbance from noise	▶ Operational phase measures are set out in the noise mitigation plan (see section 12.7, Chapter 12).	Requirement 9 (noise mitigation)
All Damage to habitats and/or species through smothering/inhalation from dust	▶ As part of the CEMP the contractor will produce and implement a DMP this will include details of measures to identify and reduce the risk, monitoring any dust and identify appropriate clean-up measures (see Chapter 6, Air Quality). Monitoring will be agreed with the Local Authority in accordance with best practice for construction projects. This will include use of dust gauges at suitable residential receptors. Osiris monitoring of PM may be used during more intense periods of construction activity (e.g. the initial construction period in the run-up to opening). ▶ Measures will include locating stockpiles away from site boundary/receptors, covering or damping down stockpiles, stockpile maintenance/management, and removal of materials from site.	Requirement 6 (CEMP)
All Damage to habitats and/or species caused by changes to air quality arising from Non-Road Mobile Machinery and vehicles during the construction phase	▶ As part of the CEMP the contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development. ▶ Measures will include avoiding the use of diesel or petrol-powered generators and use mains electricity or battery-powered equipment where practicable; ensuring all vehicles switch off engines when stationary (no idling vehicles).	Requirement 6 (CEMP)
All Damage to habitats and/or species through water pollution during construction.	▶ Construction practices would comply with the Environment Agency's Pollution Prevention Guidelines with a view to preventing the pollution of ground and surface water. Pollution prevention control measures for water quality issues are detailed in a method statement (as part of the CEMP) and implemented during the construction phase to avoid damage to habitats/species. **Chapter 8** details further measures.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
		Requirement 13 (surface and foul water drainage
(Table 8.13) **Surface and groundwater (Construction Phase)** Uncontrolled sediment from the construction process entering the freshwater environment as a potential pollutant.	▶ Site access points will be regularly cleaned to prevent build-up of dust and mud. ▶ Earth movement will be controlled to reduce the risk of silt combining with the site run-off. ▶ Properly contained wheel wash facilities will be used (where required) to isolate sediment rich run-off. ▶ Cut-off ditches and/or geotextile silt-fences will be installed around excavations, exposed ground and stockpiles to prevent the uncontrolled release of sediments from the site. ▶ Sediment traps will be required on all surface water drains in the surrounding region. ▶ Silty water abstracted during excavations will be discharged to settlement tanks or siltbusters as appropriate. Cleaned run-off will be discharged through the existing foul sewer drains. If sewer capacity is limited then silty water will need to be stored and removed from the site by tanker and disposed of at a suitably licensed location. A discharge consent for discharge to foul sewer, detailing volumes and rates of discharge will be agreed with SW prior to the commencement of works, if necessary. ▶ Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered. ▶ Outfalls into surface waters will be monitored regularly during construction and works halted if pollution is observed. ▶ Location of monitoring: any points of surface water discharge from the site. It is assumed within the ES that in Phase 1 all construction water will go to bowser to be taken off site for discharge, and therefore no monitoring will be required. In construction phases 2-4, the ponds will be in use and the discharge from the ponds will be monitored.	Requirement 6 (CEMP) Requirement 5 (detailed design of fuel depot) Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ Frequency of monitoring: The water quality should be inspected at least on a daily basis at point of outfall for low risk operations, but also in an ad-hoc way to coincide with changes in construction activities, which could change the outflow water quality profile. There could be a requirement for continuous monitoring (e.g. turbidity, EC) if a particular contaminant were identified in the made ground on site. It should be noted that runoff is largely going to occur from areas of hardstanding due to the high infiltration capacity of the soils / aquifer, therefore works in areas where soils are exposed are not likely to generate runoff. In addition, conditions are relatively dry at Manston and therefore the number of days that runoff is generated will be small, and the number of days that the pump is in operation will also be small. As a result, an event-based monitoring regime may be more appropriate than a continuous regime. The frequency of monitoring should be determined once the detailed construction phasing and dewatering plans have been finalised, as well as the GI works.	
Surface and groundwater (Construction Phase) Spillages of oils and other chemicals associated with the construction process entering the freshwater environment as a potential pollutant.	▶ Wherever possible, plant and machinery will have drip trays beneath oil tanks / engines / gearboxes / hydraulics which will be checked and emptied regularly and correctly disposed of via a licensed waste disposal operator. ▶ Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, including the siting of the storage area away from the drainage system on an impermeable base, with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents. Connection valves and trigger guns will be protected from vandalism and kept secure when not in use. ▶ A spillage Environmental Response Plan will be produced, which site staff will have read and understood. On-site provisions will be made to contain a serious spill or leak through the use of spill kits, booms, bunding and absorbent material. ▶ The bulk of the existing runways and taxiways will be kept as they afford protection to the adit in SPZ1. In order to mitigate against any potential FOD hazard (a concern raised by the CAA), it is proposed to overlay the extended paved area with asphalt as part of the initial construction phase.	Requirement 6 (CEMP) Requirement 5 (detailed design of fuel depot) Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ Hazardous liquids will be stored further than 10m from any surface waters or surface water gullies.	
Surface and groundwater (Construction Phase) Pollution incidents resulting from concrete batching and cement products on-site during the construction process.	▶ Any mixing and handling of wet concrete that is required on-site will be undertaken in designated areas outside of SPZ1, and the location and configuration of the plant will be agreed with the EA. ▶ A designated area will be used for any washing down or equipment cleaning associated with concrete or cementing processes and facilities provided to remove sediment prior to disposal to foul sewer. ▶ Any contaminated soil will be identified by ground investigation prior to construction and either treated on-site and reused, or removed and disposed of off-site by a suitably licensed waste disposal operator. ▶ Measures such as cut-off trenches will be put in place to prevent any potentially polluted run-off from within the site entering any excavations.	Requirement 6 (CEMP) Requirement 5 (detailed design of fuel depot) Requirement 13 (surface and foul water drainage)
Groundwater (Construction Phase) Piling and other intrusive works increasing turbidity of groundwater at the Lord of the Manor source.	▶ The approach to any on-site piling will be agreed with SW and the EA prior to the commencement of works. Piling methods will be designed to have a minimum of ground disturbance and will be in accordance with “Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention” and “Piling into contaminated sites”. ▶ No drilling to take place within 100m of the western adit without a specific risk management plan in place.	Requirement 15 (piling)
Water supply / sewage infrastructure (Construction Phase) Effects on the functionality of the water supply and	▶ The exact locations of nearby sewers and water supply infrastructure needs to be established by on-site survey prior to demolition works. An appropriate protection system (i.e. temporary support structure, sheet piles, installation of secant piles etc.) has to be implemented to minimise any impact to the public sewer network. The piling methodology will be developed considering the neighbouring utility services. ▶ The water requirements for the construction phase will be agreed with Southern Water post consent.	Requirement 6 (CEMP) Requirement 14 (piling)

Impact	Mitigation proposed (location where applicable)	DCO Reference
sewer infrastructure around the site during the construction phase.	▶ Discharge rates from the site will not exceed current sewer capacity, and these rates will be agreed with SW to ensure appropriate storage is provided on site during the construction phase. ▶ The EA will be consulted on any changes made to the design of the surface water system.	Requirement 13 (surface and foul water drainage)
(Table 9.9) **Non-designated heritage assets of archaeological interest (Construction Phase)** Disturbance or removal of assets could give rise to loss of archaeological interest. Potential harm to non-designated assets has been assessed in the desk-based assessment (Appendix 9.1). The assessment identified potential for assets of national, regional and local significance. Based on topography, the area along and to the south of the ridgeline, along which the runway is located, is identified as being archaeologically sensitive. Further survey is required, particularly in the northern	▶ Subject to further survey and any subsequent intrusive investigation that may be required, harm or loss of archaeological interest will be minimised through investigation and recording in cases where heritage assets of low or medium significance are present, and avoided or minimised where feasible through flexibility inherent in the master planning process for heritage assets of high significance. Disturbance in the areas to the south of and to either end of the runway will be limited to services and lighting. ▶ The existing runway, taxiways and areas of hardstanding will be used to minimise further disturbance and intrusive works in the demonstrably sensitive areas to either end and to the south of the runway and will be restricted to provision of services.	Requirement 6 (CEMP) Requirement 16 (Archaeological remains)

Impact	Mitigation proposed (location where applicable)	DCO Reference
grass area, to fully establish potential.		
Historic Landscape Character, built heritage assets and current heritage uses within the airport boundary. (Construction Phase) Change to historic landscape character and setting of heritage assets during construction phases, arising from changes to the layout of the airport, and visual impacts associated with construction works, demolition and construction work access, and operations. Changes to non-designated structures and location of heritage assets within the airport (see Appendix 9.1 for details of assets and Chapter 3: Description of the Proposed Development for changes).	▶ Removing temporary construction features to restore plan and character of airport where possible. Further survey as required to establish significance and condition of historic structures and the potential for reuse and/or relocation where feasible. A safeguarded museum area retains the existing museum buildings and memorial gardens, with retention of further structures to be discussed with the museum operators (see Chapter 3: Description of the Proposed Development). Flexibility inherent in the master planning process provides opportunities for adjusting the detailed design and footprint of buildings within the Northern grass area to enhance setting of the museum buildings and contribute to sense of place. Opportunities will be sought to retain historic connections through aspects such as street and building names, and an Airport Consultative Committee will be set up.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Humans /Surface (coastal) and ground water Mobilisation of and exposure to existing potential contamination through soil disturbance, generation of dust during construction activities.	▶ The works will be carried out in accordance with relevant Construction Design Management (CDM) Regulations 2015. ▶ A survey (pre- site preparation survey as defined by the HSE) and removal of asbestos containing materials, and other materials and structures contaminated with asbestos fibres, are expected to be performed by a competent/licensed contractor prior to any demolition works. ▶ For site workers and visitors, the potential for exposure to contaminants will be mitigated by the Control of Substances hazardous to Health (COSHH) Regulations 2002 and the Management of Health and Safety at Work Regulations 1999 and controlled through good construction practices such as site induction, good hygiene practices, dust suppression (especially in loading / unloading bays and tracks), requirement for Personal Protective Equipment (PPE) suitable to prevent exposure and/or restricted access during higher risk activities. ▶ A watching brief will be in place during demolition, ground and construction works. If unexpected contamination is encountered or suspected, the works will cease in that area and assessment by a suitably qualified land contamination specialist will be made to determine appropriate actions. Soil (soil vapour/ groundwater) samples will be collected and analysed. The risks associated with contamination will be assessed. When required, a remediation strategy will be designed and agreed following consultation with the EA and the relevant local authority as appropriate before implementation. ▶ Any construction activity with the potential to produce or release dusts will be assessed and dust avoided where possible through design, or, if unavoidable will be controlled on-site using construction good practice to prevent site users and neighbouring site occupiers being exposed to contaminants. ▶ Site access points will be regularly cleaned to prevent build-up of dust and mud. ▶ Any imported landscaping material will be clean and free of contaminants and of suitable thickness. ▶ Site access points will be regularly cleaned to prevent build-up of dust and mud.	Requirement 6 (CEMP) Requirement 10 (Landscaping)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ Earth movement will be controlled to reduce the risk of silt combining with the site run-off. ▶ Properly contained wheel wash facilities will be used (where required) to isolate sediment rich run-off. ▶ Cut-off ditches and/or geotextile silt-fences will be installed around excavations, exposed ground, stockpiles to prevent the uncontrolled release of sediments from the site. ▶ Sediment traps will be required on all surface water drains in the surrounding region. ▶ Silty water abstracted during excavations will be discharged to settlement tanks or siltbusters as appropriate. Cleaned run-off will be discharged through the existing foul sewer drains. If sewer capacity is limited then silty water will need to be stored and removed from the site by tanker and disposed of at a suitably licensed location. A discharge consent for discharge to foul sewer, detailing volumes and rates of discharge will be agreed with SW prior to the commencement of works, if necessary. ▶ Stockpiles and material handling areas will be kept as clean as practicable to avoid nuisance from dust. Dusty materials will be dampened down using water sprays in dry weather or covered.	
Humans /Soils/ Surface (coastal) and ground water Exposure to contaminants/ Pollution incidents resulting from spillage due to spillages of oils and other chemicals associated with the construction process.	▶ The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by the COSHH Regulations 2002 and the Management of Health and Safety at Work Regulations 1999 . ▶ Fuel, oil and chemical storage and handling will be minimised in the design of the works and safe working procedures / method statements for handling fuel and minimising the potential for spillage will be put in place, for instance by emptying and properly decommissioning fuel tanks prior to removal. ▶ The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by pollution prevention measures and good working practices in accordance with current guidelines.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ Wherever possible, plant and machinery will have drip trays beneath oil tanks / engines / gearboxes / hydraulics which will be checked and emptied regularly and correctly disposed of via a licensed waste disposal operator. ▶ Oils and hydrocarbons will be stored in designated locations outside of SPZ1 with specific measures to prevent leakage and release of their contents, including the siting of the storage area away from the drainage system on an impermeable base, with an impermeable bund that has no outflow and is of adequate capacity to contain 110% of the contents. Valves and trigger guns will be protected from vandalism and kept locked when not in use. ▶ A spillage Environmental Response Plan will be produced, which site staff will have read and understood. On-site provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material. ▶ The bulk of the existing runways and taxiways will be kept as they afford protection to the adit in SPZ1. In order to mitigate against any potential FOD hazard (a concern raised by the CAA), it is proposed to overlay the extended paved area with asphalt as part of the initial construction phase.	
Humans /Buildings And services Discovery and potentially explosion of UXO associated with construction process.	▶ A detailed Unexploded Ordnance (UXO) threat and risk assessment will be carried out in accordance with CIRIA C681 Chapter 5[i] on managing UXO risks prior to any intrusive works such as a ground investigation and the re-development of the site to determine any mitigation required to address this risk. This will be done in a phased approach, with additional assessment carried out as part of the site investigation. Future work relating to UXO will follow CIRIA guidelines.	Requirement 6 (CEMP)
Soils / Ground water Pollution incidents resulting from the release of contaminants from building materials or construction activities.	▶ During the site works tendering process the expected level of environmental control will be included in the tender documents, so that all contractors allow for mitigation measures in their work scope. These environmental controls will be included within the final CEMP and implemented in the construction works. Suitably qualified and experienced geo-environmental engineers would be used to supervise the ground works.	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ Designated washdown areas outside of SPZ1 with fully contained drainage will be used for plant/vehicles in contact with contaminated soils to avoid contaminants being moved around the site or taken off-site. ▶ The foundation excavations will be dewatered by pumping if required. The water will be collected in suitable tanks and held on site for collection by a licensed waste contractor. No water from foundation dewatering operations will be discharged directly to ground. If required, any discharge would occur under the appropriate regulator's consent. ▶ The risks will be mitigated through specification of impermeable concrete to the appropriate British Standard to minimise any potential adverse impacts.	
Ground and coastal water Pollution incidents due to creation of pathways for the migration of potential contamination.	▶ Suitable foundation design and piling methods will be implemented to prevent migration of any potential/residual contamination and will be agreed with SW and the EA prior to the commencement of works. ▶ Piling methods will be in accordance with "Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention"xcviii and "Piling into contaminated sites"xcix. ▶ Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. ▶ Remediation of potential residual contaminants at the Jentex tank farm will be undertaken, subject to risk-based assessment.	Requirement 11 (contaminated land and groundwater) Requirement 15 (piling)
Humans / Groundwater/ coastal water Pollution incidents due to removal of tanks during construction phase.	▶ Safety precautions will be implemented and will include preparing an emergency response plan within the site health and safety documentation. ▶ Remediation of potential residual contaminants at the Jentex tank farm will be undertaken, subject to risk-based assessment.	Requirement 6 (CEMP) Requirement 11 (contaminated land and groundwater)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Surface (coastal) and ground water Pollution incidents resulting from concrete batching and cement products on site during the construction process.	▶ Any mixing and handling of wet concrete that is required on-site will be undertaken in designated areas outside of SPZ1. ▶ A designated area, the location and configuration of which will be agreed following consultation with the EA, will be used for any washing down or equipment cleaning associated with concrete or cementing processes and facilities provided to remove sediment prior to disposal to foul sewer. ▶ Any contaminated soil will be identified by ground investigation prior to construction and either treated onsite and reused, or removed – subject to risk-based assessment - and disposed of off-site by a suitably licensed waste disposal operator. ▶ Measures such as cut-off trenches will be put in place to prevent any potentially polluted run-off from within the site entering any excavations.	Requirement 6 (CEMP)
Humans Health hazard due to future maintenance works (particularly any in ground maintenance works) that may disturb any residual contamination.	▶ The site investigation and subsequent risk assessment will identify whether any further remediation is required. Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. ▶ This might include the use of defined service corridors or clear service trenches so that maintenance workers are not exposed to potential residual contamination. ▶ The health and safety file for the construction will include information of ground contamination and will be kept and used to develop risk assessment and method statement including mitigation measures to address these risks in line with health and safety legislation during operational phase.	Requirement 6 (CEMP) Requirement 11 (contaminated land and groundwater)
Humans / Soils / Ground and coastal water Health hazard due to, or pollution incidents resulting	▶ The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated through compliance with the COSHH Regulations 2002ci and the Management of Health and Safety at Work Regulations 1999cii. ▶ Fuel, oil and chemical storage and handling will be minimised in the design of the works and safe working procedures / method statements for handling fuel and minimising the potential for spillage will be put in place.	Requirement 6 (CEMP) Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
from, spillages during re-fuelling.	▶ The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by pollution prevention measures and good working practices in accordance with current guidelines. ▶ Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Different treatment methods will be considered, light liquid separator, activated sludge aeration tank and/or forced bed aeration, to treat pollutants with will include exhaust fumes, fuel and lubricant spillages. ▶ Control levels and alarms will be used to identify leaks or overflows. Fuelling system will include automatic shut off drainage system whilst vehicles will be on refuelling stand.	
Humans / Buildings and services / Groundwater Health hazard / Damage to property due to residual contamination being present as a result of the inappropriate re-use / use of contaminated fills and soils during the construction phase.	▶ Soil to be re-used will be controlled under the CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2)ciii to confirm they are suitable both chemically and geotechnically. ▶ Any imported landscaping material will be clean and free of contaminants and of suitable thickness. ▶ The construction development will bring forward a mostly impermeable cover on the site.	Requirement 6 (CEMP) Requirement 11 (contaminated land and groundwater)
Humans/ Soils / coastal and Ground - water Health Hazard / Pollution incidents due to leakage and / or failure from fuel storage tanks.	▶ Further site investigations will be undertaken to inform the detailed design of the fuel farm facility. ▶ The fuel farm will largely be located in SPZ2 with only a small piece in SPZ1. All fuel infrastructure will be in SPZ2 (according to most recent development plans (dated 26/10/2017)). ▶ Design will be undertaken beyond BAT and will include: bund construction, specification of double bunded tanks, bund to be underlain by impermeable membrane (e.g. visqueen), joints to be sealed with a hydrophobic sealant to prevent leakage, and concrete to include	Requirement 5 (detailed design of fuel depot) Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	self-sealing material (e.g. xypex) and to be specified to water impermeable standard with additional reinforcement to limit cracks to e.g. <0.2 mm. ▶ The new fuel farm facility will incorporate suitable blast protection and other measures to control and mitigate any risks to nearby commercial, residential and other property from an incident at the fuel farm. The design of these measures will be discussed with the Health and Safety Executive. ▶ A new airside/landside security facility will be installed in the location of the existing 'emergency access gate' adjacent to the Jentex facility to provide direct airside access for the fuel farm. ▶ Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Control levels and alarms will be used to identify leaks or overflows. Regular tank inspections will be conducted. Fuelling system will include automatic shut off of drainage system whilst vehicles will be on refuelling stand. In the bunded area, sump drainage will be to a low point from where it will be manually pumped into the drainage system (if clean) or to tanker if contaminated. All pipes will go over the bund wall (no below ground pipes).	Requirement 13 (surface and foul water drainage)
Buildings and services Permeation of plastic pipes by contaminants.	▶ The intrusive investigation will inform the package of measures to be included within the detailed design, which could include use of appropriate type and material specification of potable water pipes and other buried services (e.g. use of barrier pipe and/or clean service trenches).	Requirement 4 (detailed design)
Landscape elements: trees within the site boundaries Potential loss or damage to valued vegetation (including tree roots as a result of construction	▶ Vegetation /tree survey and protection plans considered as part of the design process. ▶ Construction activities to be carried out in accordance with BS 5837: 2012 Trees in relation to design, demolition and construction. Recommendations in order to protect trees and other vegetation which is to be retained. ▶ New tree planting to be undertaken to replace that lost. The design of new planting has been located to deliver screening and softening of large-scale built form and is proposed along the southern side of Manston Road (north of the Cargo Facilities) and around the Aviation Business Park. Further planting is proposed east of Spitfire Way. Typical proposed	Requirement 6 (CEMP) Requirement 10 (landscaping)

Impact	Mitigation proposed (location where applicable)	DCO Reference
activity) and screening elements.	species will be native and non-berrying so as to reduce bird attraction. The width of the planted buffers along the perimeter of the business park is typically 45m whilst elsewhere it ranges from 25-30 m with planting densities at 4 m centres in line with recommendations from the Civil Aviation Authority.	
Landscape character Direct or indirect effects on valued characteristics, special qualities and character	▶ Incorporation of enhanced landscape/architectural design, the provision of a landscape masterplan and landscape management to reduce effects of landscape character and ensure that the nature of these effects is neutral or positive as far as possible. The use of building materials, detailing and finish for the roofs and facades of proposed buildings that respond in a positive way to the existing landscape context. However, these details are not yet available so cannot be used to inform the assessment. ▶ In terms of overflying and the potential effects on tranquillity, the noise mitigation strategy has been developed in line with the CAP 1520: Draft Airspace Design Guidance.	Requirement 4 (detailed design) Requirement 9 (noise mitigation) Requirement 10 (landscaping)
All visual receptors overlapped by the ZTV within the study area Changes to existing views, visual amenity and scenic quality: • Introduction of new large-scale features to the view; • Alteration to the landscape character of the view; • Loss of or disruption to existing views of skylines; • Changes to perceptions if	▶ The provision of screening vegetation as detailed above around the Aviation Business Park, the southern side of Manston Road (north of the Cargo Facilities) and east of Spitfire Way. Localised bunding offers further visual screening in key locations by raising the ground level for planting. It is anticipated that the design of the buildings will be of high quality and that the design treatment, detailing and materials will be used to mitigate the apparent scale and soften the appearance of the buildings. However, these details are not yet available so cannot be used to inform the assessment.	Requirement 4 (detailed design) Requirement 10 (landscaping)

Impact	Mitigation proposed (location where applicable)	DCO Reference
movement through increased traffic (including HGV) and air movements; and Visual effects resulting from light pollution.		

Construction Noise
Nearby residential properties and other sensitive receptors arising from construction activities.
	▶ The developer will require its contractors to consider mitigation in the following order:
	  ▶ BPM, including:
	  ▶ Noise and vibration control at source - for example the selection of quiet and low vibration equipment, review of construction programme and methodology to consider quieter methods, location of equipment on site, control of working hours, the provision of acoustic enclosures and the use of less intrusive alarms, such as broadband vehicle reversing warnings; and
	  ▶ Screening - for example local screening of equipment, perimeter hoarding or the use of temporary stockpiles.
	▶ The recommendations of BS 5228 Code of practice for noise and vibration control on construction and open sites parts 1 and 2, will be implemented, together with the specific requirements of this CEMP.
	▶ The effects of noise and vibration from construction sites will be controlled by introducing management and monitoring processes to ensure that BPM are planned and employed to minimise noise and vibration during construction. Contractors will prepare a noise and vibration management plan which will set out these processes. The plan will include management and monitoring processes to ensure as a minimum:
	  ▶ Integration of noise control into the preparation of method statements;
	  ▶ Ensuring proactive links between noise management activities and community relations activities (see Section 5);
		Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ Preparing details of site hoardings, screens or bunds that will be put in place to provide acoustic screening during construction, together with an inspection and maintenance schedule for such features; ▶ Preparing risk assessments to inform structural surveys of buildings and structures which may be affected by vibration from construction; ▶ Developing a noise and vibration monitoring protocol including a schedule of noise and vibration monitoring locations and stages during construction of the Proposed Development when monitoring will be undertaken; ▶ Preparing and submitting Section 61 consent applications; ▶ Undertaking and publishing all monitoring required to ensure compliance with all acoustic commitments and consents; and ▶ Implementing management processes to ensure ongoing compliance, improvement and rapid corrective actions to avoid any potential non-compliance.	
Construction Noise (Impacts on residents/community)	▶ Contractors will seek to obtain consents from the relevant local authority under Section 61 of the Control of Pollution Act 1974ii for the proposed construction works, excluding non-intrusive surveys. Applications will normally be made to the relevant local authority for a Section 61 consent at least 28 days before the relevant work is due to start. ▶ Details of construction activities, prediction methods, location of sensitive receivers and noise and vibration levels will be discussed with the relevant local authority, or authorities, both prior to construction work and throughout the construction period. Prediction, evaluation and assessment of noise and vibration as well as discussion between the Developer and its contractors and the relevant local authority will, by necessity, continue throughout the construction period. ▶ Annex 1 of BS 5228 Code of practice for noise and vibration control on construction and open sites parts 1 and 2 provides a flow diagram demonstrating the process of a Section 61 application. The Developer will seek to agree with local authorities a common format and	Requirement 6 (CEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	model consent conditions for Section 61 applications or any dispensations and variations to an existing consent. ▶ The application for a Section 61 consent will require noise assessments to be undertaken and BPM measures set out to minimise noise associated with construction of the Proposed Development. The Developer's lead contractors will submit the assessment initially to the Developer for review, prior to submission to the relevant local authority. ▶ The Developer's contractors will carry out noise (and vibration where appropriate) predictions for Section 61 applications. An assessment of the predicted levels will be carried out with reference to the ES Chapter 12: Noise and Vibration.	

Local Population: Individuals of Working Age • Generation of employment opportunities in the construction sector and within airport related industries. • Reduction in levels on unemployment within the local area (i.e. Thanet).	▶ Measures to optimise local recruitment during construction and operation, including possible measures to ensure linkages to local training initiatives and/or voluntary agreements relating to local recruitment. ▶ There is further scope to employ those who are currently unemployed; assumption that approximately 1,800 jobs[1] may be provided to those currently unemployed. ▶ Agreed commitments by RiverOak are inclusive of the following: ▶ Working with East Kent College (or another party such as Canterbury Christ Church) to locate an aviation college on or close to the Proposed Development site; ▶ Providing practical support to the long-term unemployed (as per Stansted Airport Skills Academy) such as: ▶ Informal 'meet the employer' events, interview preparation; ▶ Help with CVs; ▶ Careers guidance; ▶ Financial support such as paying for public transport to interviews and training sessions; ▶ Working with local councils and third sector organisations to help promote job opportunities to local people, particularly to the long-term unemployed; ▶ Working with Further Education (FE) and Higher Education (HE) to promote apprenticeships at all levels; ▶ Working with FE/HE to develop courses (where not currently available) relevant to the job opportunities created by the operation of the Proposed Development; ▶ Working with other employers to provide 'hands on' training opportunities; and ▶ Working with other employers to provide equipment (such as out of service aircraft/aircraft parts) to support FE/HE delivery of courses.	Requirement 6 (CEMP)

[1] Assumption taken from E&H 2017

Local Businesses • Disruption to the local road network during construction impacting on employee and customer access. • Increase in economic activity as a result of temporary construction workers and further, via influx of passengers using the Proposed Development. • Construction activities will lead to an increase in spending in the local economy by contractors and airport employees.	▶ Carefully designed programme of traffic management during construction to minimise disruption. Specific measures are outlined within the Construction Traffic Management Plan appended to the Traffic Assessment.	Requirement 9 (noise mitigation) Requirement 14 (traffic management)
Tourism Disruption to the local road network during construction impacting on employee and visitor access.	▶ Carefully designed programme of traffic management to minimise disruption. Specific measures are outlined within the Construction Traffic Management Plan appended to the Traffic Assessment.	Requirement 6 (CEMP) Requirement 9 (noise mitigation) Requirement 14 (traffic management)
Construction	▶ A CTMP will be agreed with KCC prior to construction works commencing. The CTMP would seek to keep construction traffic on the strategic highway network and avoid sensitive routes and local communities in order to minimise impacts on receptors and manage environmental effects.	Requirement 6 (CEMP)

The users of local roads and the occupiers of land uses fronting roads likely to be affected. Changes in the character of traffic (such as increases in HGVs), as a result of proposed construction traffic. Potential effects on: • Severance; • Driver delay; • Pedestrian delay; • Pedestrian amenity; and • Accidents and safety.	▶ The CTMP will manage the daily delivery profiles and control movements and routeing of HGVs through the following measures: ▶ Traffic routing strategy – ensuring vehicles access the site via the most appropriate route and avoid unnecessary conflict with sensitive areas; ▶ Traffic timing strategy – programme vehicle arrival/departures and working hours to lessen the impact on the highway network; ▶ Temporary signage – in accordance with the Department for Transport Traffic Signs Manual, Chapter 8 to inform local road users of construction access points and the presence of HGVs; ▶ Temporary traffic management – provided on approaches to accesses in the form of traffic warning signs, possible reductions in speed limit signs to ensure safe passage of vehicles; ▶ Site accesses designed in accordance with Design Manual for Roads and Bridges 42/95 Geometric Design of Major/Minor Priority Junctions; and ▶ Staff travel plan – will provide details of how staff will travel to the site by alternative modes in an effort to reduce single occupancy vehicles travelling to the site.	
The users of the local Public Right of Ways (PRoW) network Changes in character to PRoWs: Severance; and Pedestrian delay.	▶ A PRoW Management Plan (PRoWMP) has been submitted as part of the DCO application and sets out proposals to retain all pedestrian links and routes that exist currently via diversions if required. As such, impacts on the pedestrian effects will be no worse that they are currently or enhanced with new surfaces and routes.	Requirement 6 (CEMP)
Receptor 20 – B2190 Spitfire Way between Spitfire Way and B2190 Columbus Avenue	▶ Widening of Spitfire Way between Columbus Avenue and Manston Road. ▶ Inclusion of a new Pedestrian footway on the south side of the carriageway. ▶ Re-establishing road markings and warning signs.	Requirement 14 (traffic management)

Receptor 23 – B2050 Manston Road between Manston Road and Manston Court Road	▶ Widening of Spitfire Way between Columbus Avenue and Manston Road. ▶ New pedestrian footway on the south side of the carriageway. ▶ Re-establishing road markings and warning signs.	Requirement 14 (traffic management)
Air Pollutant emissions Impact on locals respiratory and cardiovascular health from air pollutant exposure.	▶ CEMP with management measures for dust, on-site plant and construction traffic.	Requirement 6 (CEMP)
Noise Noise impact on locals from construction phase	▶ CEMP with best practicable means to control construction noise. ▶ Noise insulation grant scheme for freehold owners of residential properties in 63 dB LAeq 16hr day time contour or 55 dB LAeq 8hr night-time contour and for other noise-sensitive buildings in the 60 dB LAeq 16hr day time contour. Relocation assistance grant for freehold owners of residential properties in 69 dB LAeq 16hr day time contour if choosing to move to a quieter location. ▶ Limitations on engine testing (to include no open field testing of jet engines at night, except where operationally urgent and carried out within a designated test area) and reverse thrust; preferential take-offs from Runway 28 and landings on Runway 10; aircraft noise monitoring and track monitoring with fines for exceedances/deviations. Consultative Committee and Community Trust Fund to spend any penalties collected.	Requirement 6 (CEMP) Requirement 9 (noise mitigation)
Ground and water contamination	▶ Ground investigation and risk assessment with remediation during construction if required; storage and secondary containment of chemicals to regulatory standards; drainage design and treatment to avoid contaminated runoff to surface or ground water.	Requirement 11 (contaminated land and groundwater)

		Requirement 13 (surface and foul water drainage)
Flood Risk Impact of health or wellbeing issues due to property flooding.	▶ Drainage strategy with runoff management and attenuation to avoid any increase in discharge rate and off-site flood risk	Requirement 13 (surface and foul water drainage)
Biodiversity (Habitats) (Construction Phase) Climate change impacts on vegetation resilience in compensation areas for SPI/red-listed bird species.	▶ To ensure that the conservation status of SPI/red-listed birds of conservation concern is maintained, appropriate habitat, using plant species appropriate for the changing climate, will be created prior to commencement of construction within the c.36 ha compensation site (land parcel 1362) south of the Proposed Development. The arable area within the compensation field will contain 'skylark plots' at a density of 2 per ha.	Requirement 10 (landscaping)
Freshwater Environment (Construction Phase) Overwhelming of local drainage system in future flooding events.	▶ The EA have agreed under the site drainage strategy that the drainage system will be designed so that there would be no offsite flooding for a 1% Annual Exceedance Probability) AEP event with a 40% climate change allowance (scenario agreed with KCC as Lead Local Flood Authority (LLFA)). All surface water will be captured, attenuated within two ponds, treated and then discharged to Pegwell Bay via an existing pump and outfall.	Requirement 13 (surface and foul water drainage)
Land Quality (Construction Phase) Overwhelming of local drainage system in future flooding events. Contaminated run-off	▶ Storage lagoons will be appropriately sized to account for NPPF climate change allowances, to ensure that treatment facilities continue to function.	Requirement 13 (surface and foul water drainage)

generated by de-icer storage and use enters the groundwater environment as a potential pollutant.		
Global Atmosphere **(GHG emissions)** Potential GHG emissions from vehicles and plant during the construction phase.	▶ The contractor will include measures to reduce or limit air quality effects during the construction phase of the Proposed Development. ▶ Measures will include avoiding the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable; ensuring all vehicles switch off engines when stationary — no idling vehicles. ▶ Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times.	Requirement 6 (CEMP) Requirement 14 (traffic management)
Global Atmosphere **(GHG emissions)** Changes in the character of traffic (such as increases in HGVs) as a result of proposed construction traffic.	▶ A CTMP would be agreed with KCC prior to construction works commencing. The CTMP would seek to keep construction traffic on the strategic highway network and avoid sensitive routes and local communities in order to minimise impacts on receptors and manage environmental effects.	Requirement 6 (CEMP) Requirement 14 (traffic management)
Land, Surface and ground water (including particular species, designated sites and habitats) **(Construction Phase)** Large accidental spillages of oils and other chemicals (including those associated	▶ Fuel, oil and hazardous chemical storage and handling will be minimised in the design of the works and safe working procedures /method statements for handling these substances and minimising the potential for spillage will be put in place. ▶ Tanks and stored chemicals will be located away from excavation and high vehicle movements. ▶ Oils, chemicals and fuels will be stored in designated locations with specific measures to prevent leakage and release of their contents into water receptors, including the siting of the storage area away from the drainage.	Developer requirement / condition Requirement 4 (detailed design) Requirement 5 (detailed design of fuel depot)

with firefighting) associated with the construction process, escalation from external or airport based event or natural disaster entering the environment (land or water) as a potential pollutant to cause a major accident.	▶ Any large quantity of fuel, chemical, oil (including those of waste) will be located away from the SPZ1 area and drainage routes to Pegwell Bay. ▶ The risks from accidental spillages or leaks (including those arising as a result of loss of containment from extreme adverse weather) during handling and storage of chemicals and fuels will be mitigated by good working practices (e.g. set out in the CEMP). ▶ Risks arising from interaction with the operational airport and its facilities (post Phase 1), including communication and control of temporary changes, will be controlled by good working practices. These may include, but are not limited to the following: ▶ Appropriate waste management, including its segregation, is undertaken; ▶ Site rules are followed by all those on site; ▶ Appropriate training is taken and competency tested; ▶ Risk assessments are completed, considering both operational spillages and sources with major accident/disaster potential; and ▶ All chemicals and flammable products are appropriately stored and contained. ▶ Construction risk management processes with risk reduction to ALARP and adoption of inherent safe design approaches for environmental major accidents and disaster hazards. This will include: ▶ Identification of major accident and disaster hazards; ▶ Access consequences and frequency; and ▶ Ensure all risk is ALARP or broadly acceptable by review of all hazards, considering additional measures and implementing all that provide benefit without gross disproportion to the cost. All measures should be considered based on hierarchy of control (i.e. prevention through to emergency response, recovery and remediation). ▶ Management of Change Procedures to be developed within the Airport Safety and Environmental Management System to support Post Phase 1 construction. ▶ The Construction Emergency Plan will incorporate major accidents and disasters and their response arrangements.	Requirement 6 (CEMP)

	▶ A SWMP and associated procedures to be adopted. ▶ Traffic controls and management with collision barriers will be provided where required. ▶ Historical site risk from previous activities (e.g. UXO and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found, a plan will be developed for their controlled removal. ▶ Secure site with restricted access.	
Land, Surface and ground water (including particular species, designated sites and habitats) (Construction Phase) Structural/equipment/civils collapse associated with the construction process, escalation from external or airport event, or natural disaster on the Proposed Development leading to hazardous substances entering the environment (land or water) as a potential pollutant.	▶ The risks from construction activities will be mitigated by measures determined by a construction risk assessment in accordance with the Construction (Design and Management) Regulations 2015) and good working practices (e.g. set out in the CEMP). ▶ Adoption of inherent safe design principles[2] in the design plan. Construction risk management with risk reduction to As Low As Reasonably Practicable (ALARP) for environmental major accidents and disasters. ▶ Risks arising from interaction with the operational airport and its facilities (post phase 1), including communication and control of temporary changes, will be controlled by good working practices (e.g. set out in the CEMP). ▶ The Emergency Plan will incorporate the identified major accidents and disasters and their response arrangements. ▶ Management of Change Procedures to be developed within the Airport Safety and Environmental Management System to support Post Phase 1 construction. ▶ Traffic controls and management with collision barriers will be provided where required (as further outlined in the CTMP and summarised in Section 3.5 and Section 5.10). ▶ Secure site with restricted access. ▶ Historical site risk from previous activities (e.g. UXO) and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found a plan will be developed for their controlled removal.	Developer requirement / condition Requirement s 4 (detailed design) Requirement 6 (CEMP)

2 Policy and guidance on reducing risks as low as reasonably practicable in Design, HSE http://www.hse.gov.uk/risk/theory/alarp3.htm (accessed 3/1/2018)

Populations and their buildings (Construction Phase) Serious harm (multiple serious injury or fatality) to people on or off site during construction (e.g. fire, exposure to harmful substances, collision, structural collapse, transport risk) Exposure to natural disasters or escalation of external events (eg extreme weather, consequences of seismic events, third party fire, widespread pandemic or urban action) leading to injuries and loss of life.	▶ Equipment and storage measures as outlined for 'Land, Surface and Groundwater' above. ▶ Flammable materials and dangerous chemicals will be stored in a secure location, contained and away from populations, and the public. ▶ Control of ignition for flammable materials as required under DSEAR regulations. ▶ Management of major accident hazards through construction risk assessment, in accordance with Construction (Design and Management) Regulations 2015 and good working practices (e.g. set out in the Construction Safety Management Plan). This will include adoption of inherent safe design principles in the design plan and an Emergency Plan to cover construction activities. ▶ Risks arising from interaction with the operational airport and its facilities (post phase 1), including communication and control of temporary changes, will be controlled by good working practices (e.g. set out in the Construction Safety Management System and Plan). ▶ Management of Change Procedures to be developed within the Airport Safety and Environmental management System to support Post Phase 1 construction. ▶ Construction risk management processes with risk reduction to ALARP and adoption of inherent safe design approaches for major accidents and disaster hazards to people (set out in the SHE Plan). ▶ The Emergency Plan will incorporate the identified major accidents and disasters and their response arrangements. ▶ Traffic controls and management with collision barriers will be provided where required (as further outlined in the CTMP and summarised in Section 3.5 and Section 5.10) ▶ Secure site with restricted access.	Developer requirement / condition Requirement 5 (detailed design of fuel depot) Requirement 6 (CEMP) Requirement 11 (contaminated land and groundwater) Requirement 13 (surface and foul water drainage) Requirement 14 (traffic management)
Populations and their buildings (Construction Phase) Discovery of historical issues: potential explosion of Unexploded Ordnance	▶ Historical site risk from previous activities (e.g. unexploded ordnance and ground instability from tunnelling) minimised prior to construction: Site survey investigations and monitoring programmes will be undertaken to identify any that may be present. If any are found a plan will be developed for their controlled removal. ▶ Management of hazards through construction risk assessment in accordance with Construction (Design and Management) Regulations 2015 and good working practices in	Developer requirement / condition Requirement 6 (CEMP)

(UXO) or ground instability (eg revealed tunnelling).	accordance with current guidelines. This will include adoption of inherent safe design principles in the design plan and an Emergency Plan to cover construction activities.	
Designated Heritage Assets (Construction Phase) Serious damage to designated heritage assets. Potential sources of major accident, including fire and excavation.	▶ Intrusive investigations to be agreed with Historic England and carried out prior to the commencement of construction activities	Developer requirement / condition Requirement s 4 (detailed design) Requirement 5 (detailed design of fuel depot) Requirement 6 (CEMP) Requirement 13 (surface and foul water drainage) Requirement 14 (traffic management)
The effects of GHG emissions from the Proposed Development on the climate.	▶ The development of a Carbon Minimisation Action Plan, including incorporation of mitigations such as those listed in Table 16.15 in Chapter 16 following DCO approval has therefore been committed to. An adequate target for reduction of the 78.6 $ktCO_2$ per annum from non-aviation sources and the 808.7 $ktCO_2$ per annum from all sources will be set within the Carbon Minimisation Action Plan by the applicant, and signed off by the Secretary of State. The mitigation suggested in Table 16.15 are indicative of what could be included in the Carbon Minimisation Action Plan, and are not an exhaustive list.	

OPERATIONAL PHASE

Impact	Mitigation proposed (location where applicable)	DCO Reference
Human health and ecological receptors (Operational Phase) Potential effects upon human health and ecological resources from vehicle emissions.	▶ Agree and enforce delivery and dispatch schedules for HGV that avoid, where possible, causing congestion on the local road network and excessive emissions to atmosphere. Also, enforce a "no unnecessary idling" policy for all vehicles on the development site. These should be covered in the Operational Environmental Management Plan (OEMP).	Requirement 7 (OEMP)
Human health and ecological receptors (Operational Phase) Potential effects upon human health and ecological resources as a result of emissions from aircraft movements on the ground and during the LTO cycle	▶ Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times. ▶ Airfield layout design to minimise times taxiing and holding. ▶ Use of FEGP to minimise engine/APU use.	Requirement 7 (OEMP)
Human health and ecological receptors (Operational Phase) Potential effects upon human health and ecological resources as a result of emissions from aircraft ground support	▶ Largely electric GSE fleet. ▶ Diesel GSE largely bought new and meeting current emissions standards. ▶ Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long operation of liquid fossil-fuelled GSE.	Requirement 7 (OEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
equipment (GSE). Potential effects on odour impacts on human receptors.		
Human health and ecological receptors (Operational Phase) Potential effects upon human health and ecological resources as a result of emissions from airport operations.	▶ Provide funding to Thanet District Council to reinstate air quality continuous monitor at the ZH3 Thanet Airport location. This will monitor NO and NO_2 at hourly intervals in real time.	Requirement 7 (OEMP)
Odour (Operational Phase) Potential effects on odour impacts on human receptors.	▶ Vapour recovery on avgas (aviation spirit) tanks.	Requirement 7 (OEMP)
Odour (Operational Phase) Potential effects on odour impacts on human receptors	▶ Design of Jet-A1 fuel tanks to minimise release of vapour to ambient air.	Requirement 7 (OEMP)
Odour (Operational Phase)	▶ Treated water will be discharged to Pegwell Bay rather than to ground with appropriate monitoring of water quality to ensure quality standard is maintained. The discharge will be regulated under a Water Discharge Activity Permit from the EA. Odour will not be routinely	Permit from the EA

Impact	Mitigation proposed (location where applicable)	DCO Reference
Potential effects on odour impacts on human receptors.	monitored, but complaints from members of the public will be recorded and made available to the Local Authority.	Requirement 13 (Surface and foul water drainage)
Habitats Habitat Loss.	▶ Compensation through off-Site habitat creation at the c. 36ha land parcel 1362 (Appendix 7.13). Habitats will be managed specifically for the biodiversity value to be higher quality than that occurring on-Site.	Requirement 8 (Ecological mitigation)
Terrestrial invertebrates Disturbance to/loss of foraging habitat/breeding sites.	▶ Compensation through habitat treatments on Site (e.g. maintenance of a stressed vegetation community along runway edges by permitting short vegetation to grow on shallow substrate upon runway surface), and habitat creation on-Site south of the current southern perimeter fence and within land parcel 1362. Created habitat will be specifically designed with diverse features to encourage invertebrates (e.g. including features typical of open mosaic habitat.)	Requirement 8 (ecological mitigation)
All Damage to species through disturbance from noise.	▶ Operational phase measures are set out in the noise mitigation plan (see section 12.7, Chapter 12).	Requirement 9 (noise mitigation)
All Damage to habitats and / or species from air quality changes through excessive vehicle emissions during operation.	▶ During operation, agreed delivery and dispatch schedules for HGV's will be enforced to avoid, where possible, congestion on the local road network and excessive emissions to atmosphere. A "no unnecessary idling" policy for all vehicles on the development site is to be implemented and enforced.	Requirement 7 (OEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
All Damage to habitats and / or species as a result of emissions from aircraft movements on the ground and during the Landing and Take Off cycle.	▶ Planning of aircraft arrival and departure scheduling to avoid, where possible, over-long idling, taxiing and hold times. Airfield layout design to minimise times taxiing and holding. ▶ Use of Fixed Electrical Ground Power to minimise engine/Auxiliary Power Unit use.	Requirement 7 (OEMP)
All Damage to habitats and / or species as a result of emissions from aircraft ground support equipment (GSE).	▶ Operations will involve use of a largely electric GSE fleet. Any diesel GSE will largely be purchased new and meeting current emissions standards. Aircraft arrival and departure scheduling planned to avoid, where possible, over-long operation of liquid fossil-fuelled GSE.	Requirement 7 (OEMP)
(Table 8.14) **Surface and Groundwaters (Operational Phase)** Poorly managed site drainage from site leads to pollution of water environment.	▶ An Outline DS has been developed (see **Chapter 3: Description of the Proposed Development**). The drainage system will be designed to capture, treat and discharge water in a controlled manner. No water will be allowed to infiltrate to ground from any site hardstanding, and water will either be re-used or set to the site treatment facilities (attenuation ponds). Discharge from these ponds will be via a permitted discharge to Pegwell Bay.	Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Groundwater (Operational Phase) Leakage from the on-site waste-water lagoon (s) enters the groundwater environment as a potential pollutant.	▶ The lagoons will be constructed to high standards and monitored. Discharge of treated water and clean water will be to Pegwell Bay rather than to ground.	Requirement 13 (surface and foul water drainage)
Groundwater (Operational Phase) Leakage from fuel storage tanks and tankers enters the groundwater environment as a potential pollutant.	▶ The following aspects can be considered within the fuel farm design following BAT principles, but these would be reviewed and revised once the final scheme is agreed with the EA and SW. ▶ All fuel storage tanks on the fuel farm will be appropriately designed to at least current standards or higher (e.g. double skinned, bunded etc.), including HSG 176 (Storage of Flammable liquids in tanks), EI 1540 (Design, construction, commissioning, maintenance and testing of aviation fuelling facilities), CIRIA C 736 (Containment systems for the prevention of pollution), Guidelines on Environmental Management for Facilities Storing Bulk Quantities of Petroleum, Petroleum Products and Other Fuels; PSLG Buncefield recommendations. ▶ Design will be in accordance with the principle to reduce risk to As Low As Reasonably Practicable (ALARP). ▶ The design will take into account the requirement for primary and secondary containment: ▶ Primary containment is around the design of the fuel tanks and associated pipework (materials, thickness); ▶ Secondary containment takes a number of forms. In this case it includes a double skin on a tank; and ▶ Bunding also provides a further level of secondary containment, affording containment to pipework and equipment associated with the tank, but outside of	Requirement 7 (OEMP) Requirement 5 (detailed design of fuel depot) Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	the double skin. The appropriate sizing of bunding around the tanks. Guidelines require that the bunding must have the capacity to contain the largest predictable spill. This is achieved by providing the largest of either 110% capacity of the largest tank within the bund or 25% of the total capacity of tanks within the bund. For this tank farm a high level of integrity is embedded in the design, and each tank is located in an individual bund, so that only one tank is contained within one bund with 110% of the capacity of the tank plus an allowance for 1:100 rainfall event. Bunds to be constructed with adequate protection against collision and designed in accordance with standards. ▶ Tank and associated equipment will include leak detection, process interlocks and mechanical devices. ▶ Comprehensive areas of hardstanding across the site with an associated active drainage capture system to collect all surface drainage and hence and any leaks. ▶ Containment with sealed drainage systems would be applied to bunds and fuel points, preventing the accidental entry of contaminants into sewer/stormwater drainage network. ▶ Oil interceptors and anti-pollution control valves would be installed to surface water runoff from internal roads. ▶ Systems of leak detection would be established beneath the tanks. ▶ The tank, pipework and loading/unloading would be equipped with shutdown to provide effective isolation. Where required this would include automatic detection and isolation systems (e.g. to protect against overfill of tank). ▶ Appropriate areas of hardstanding, parking and operational buildings would be constructed for the airside bowser fleet. ▶ An Emergency Plan will be developed and will include provision for major accidents and disasters (see **Chapter 17: Major Accidents and Natural Disasters**).	
Groundwater (Operational Phase)	▶ Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Control levels and alarms will be used to identify leaks or overflows.	Requirement 7 (OEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Spillage during re-fuelling enters the groundwater environment as a potential pollutant.	▶ Personnel will be trained in the use of spill kits where applicable, and suitable mitigation measures will be outlined in the spillage Environmental Response Plan.	Requirement 13 (surface and foul water drainage)
Groundwater (Operational Phase) Contaminated run-off generated by de-icer storage and use enters the groundwater environment as a potential pollutant.	▶ Application of de-icer will only be in designated areas which have active drainage i.e. where the run-off is directed to water treatment lagoons. ▶ Specification of de-icer will be determined by the relevant regulation standards. ▶ The lagoons will be appropriately sized to account for NPPF climate change allowances, to ensure that treatment facilities continue to function.	Requirement 7 (OEMP) Requirement 13 (surface and foul water drainage)
Groundwater (Operational Phase) Leakage from the drainage network enters the groundwater environment as a potential pollutant.	▶ The drainage network will be upgraded to modern standards and all discharge will be collected in appropriately sized attenuation ponds and treated prior to off-site discharge. The drainage facilities will allow for the interception and segregation of contaminated water and un-contaminated water (e.g. roof run-off). Ponds will be monitored for possible leakage. To check for leakage from the ponds, it may be appropriate to install a gauge board in both to check that the change in water levels is commensurate with evaporation and discharge. Both evaporation and discharge rates should be monitored on a daily basis when the ponds are in use. It may also be appropriate to place a water quality monitoring borehole downgradient of the ponds which could be sampled if leakage was suspected, though it is noted that boreholes would present a risk for contamination migration to the underlying aquifer and may not be appropriate in this case.	Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Groundwater (Operational Phase) Leakage from foul sewer connections enters the groundwater environment as a potential pollutant.	▶ All foul drainage pipework will be surveyed to allow the identification of leaks/failures and these will be repaired to meet modern standards ▶ Any decommissioned existing drains will be removed to ensure that they do not form pathways for contaminant transport into the ground.	Requirement 13 (surface and foul water drainage)
Groundwater (Operational Phase) Poorly managed fire water disposal enters the groundwater environment as a potential pollutant.	▶ Proposals for storage and use of any materials for firefighting will need the agreement of the EA. ▶ The application will be in designated areas with active drainage i.e. where run-off is lead to water treatment lagoons. ▶ Operational procedures to be developed as part of the OEMP to ensure that appropriate spill kits etc are used.	Requirement 7 (OEMP)
Groundwater (Operational Phase) Spilled pesticides enter the groundwater environment as a potential pollutant.	▶ Pesticides will only be applied to hardstanding areas with active drainage to water treatment works. ▶ The airport will develop a Wildlife Hazard Management Plan, Habitat Management Plan, and Long Grass Policy to control and manage the use of chemicals to prevent them being discharged to ground/groundwater.	Requirement 7 (OEMP)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Pollution from site discharges	▶ The discharge from the Site will be regulated under a Water Discharge Activity Permit from the EA. The Water Discharge Activities permit will consider appropriate measures to ensure the protection of the downstream designated sites and discussed with NE and the EA prior to the commencement of works.	Permit from the EA
Water supply infrastructure (Operational Phase) Impacts on local water availability in the public water supply network in the operation phase.	▶ Water efficiency measures will be incorporated into the development to maximise water re-use and minimise the demand on supply. Water supply to the development are likely to be metered and this would form a part of the water rates agreement with the water company. Water efficiency measures will be embedded at the detailed design stage as grey water re-use systems, rainwater harvesting, water efficient fixtures and fitting etc. ▶ The water demand for the operation phase will be agreed with SW and presented in the ES.	Monitoring/enforcement regime TBC
Surface and groundwater (Operational Phase) General impacts on surface and groundwater quality in the operation phase, not specified above.	▶ Oil separators will be used on drains from roads and car parks to remove hydrocarbons from site run-off. ▶ Foul sewerage will be discharged to the local public sewer network, managed by SW. ▶ Operational phase plans for the management of on-site spillages will be developed prior to the DCO application or will be expected as requirements on the DCO. These include an EMP, Emergency Response and Post-Crash Management Plan and an Environmental Spillage Plan. ▶ The integrity of the Pegwell Bay pipe will be tested prior to its use as an operational discharge route, and any appropriate repairs will be undertaken. ▶ Environmental monitoring of surface waters will be implemented. ▶ Location of monitoring: monitoring will be undertaken at the outfall of Attenuation Pond 2 (clean pond) or at the outfall of Attenuation Pond 1 (dirty pond) to Pond 2. It is envisaged that monitoring would be required at one of the ponds, rather than both. The principle of monitoring at the Pond 1 outfall has been discussed with the	Requirement 7 (OEMP) Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	EA. Pond 1 is “dirty water / treatment” whereas Pond 2 is clean water e.g. roof drainage plus treated water. The outflow from the fuel farm drainage network would also require monitoring. Final decisions on location and approach will depend on what the permitting arrangement is to govern the Pegwell Bay discharge. A surface water drainage discharge to sea would not normally require a Water Discharge Activities Permit, but as indicated in the ES, the sensitivity of the features at Pegwell Bay may require a bespoke arrangement to be agreed with NE and the EA. ▶ Frequency of monitoring: This would need to be varied in response to rainfall events as, due the hydrogeology/climatic factors mentioned above, it is envisaged that there will be periods when the outfalls are not in use and increased frequency could correspond to periods of high de-icer use and rainfall, for example. Monthly monitoring, with increases in frequency, is proposed as a starting point for discussion. There could also be a period of more intense monitoring at the start of operations to give confidence that the treatment system is working (this would be part of the commissioning process). This approach would also include pre- and post-treatment sampling. The development of the monitoring strategy and detailed plan would need to include decisions on trigger levels and control values.	
Mitigation of Flood Risk **(Operational Phase)** Impacts on flood risk receptors during the operation phase.	▶ All site-drainage from areas of hardstanding will either be captured for water re-use (in the case of roof-run-off) or captured by the site drainage systems and transferred to the attenuation ponds for treatment and discharge to Pegwell Bay. ▶ The attenuation ponds will be designed to an appropriate capacity with a 40% allowance for climate change. Discharge from these ponds will be via a pipe into Pegwell Bay. The pump will have a maximum capacity of 30l/s. The final site drainage design will be agreed with the EA. ▶ Foul sewer capacity will be appropriately sized in consultation with SW and the EA.	Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
(Table 9.10) **Designated heritage assets including Historic Buildings, SM and conservation areas. (Operational Phase)** Change to setting of heritage assets during construction and operational phases, arising from changes to the layout of the airport, and visual, audible and lighting impacts associated with construction works, demolition and construction work access, and operations.	▶ Visual impact of construction activities would be partially screened by existing bunding, planting and structures within the site. ▶ Boundary design and treatment to screen new development, aircraft movements and standing aircraft in views of and from off-site heritage assets, and to reduce potential noise impacts from within the site have been considered as embedded measures of the design of the Proposed Development (**Chapter 11: Landscape and Visual Effects**; **Chapter 12: Noise and Vibration**)	Requirement 4 (detailed design) Requirement 7 (noise mitigation) Requirement 10 (landscaping)
Spitfire and Hurricane Memorial Museum and the RAF Manston History Museum (Operational Phase) Loss of buildings presently housing the museums and their collections.	▶ The existing museums on site will be safeguarded in their current form along with the memorial gardens (see Chapter 3: Description of the Proposed Development). The order will not allow any changes to the museum site without a separate application being made.	N/A

Impact	Mitigation proposed (location where applicable)	DCO Reference
Ground and coastal water Pollution incidents due to creation of pathways for the migration of potential contamination.	▶ Suitable foundation design and piling methods will be implemented to prevent migration of any potential/residual contamination and will be agreed with SW and the EA prior to the commencement of works. ▶ Piling methods will be in accordance with “Piling and Preventative Ground Improvement Methods on Land Affected by Contamination: Guidance on pollution prevention” and “Piling into contaminated sites”. ▶ Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. ▶ Remediation of potential residual contaminants at the Jentex tank farm will be undertaken, subject to risk-based assessment.	Requirement 11 (contaminated land and groundwater) Requirement 15 (piling)
Humans / Buildings and Services (Operational phase) Health hazard / Damage to property due to ingress and accumulation of vapour or ground gas resulting in health hazard from vapour or explosion/ asphyxiation for users of site buildings.	▶ Following the site investigation, buildings will be designed to comply with Building Regulations 2017c including, where necessary, ground gas and vapour protection measures such as gas vapour membranes and sub-floor ventilation in buildings and ensuring appropriate ventilation exists in any confined spaces.	Requirement 4 (detailed design)
Humans Health hazard due to future maintenance works (particularly any in ground maintenance works) that may disturb any residual contamination.	▶ The site investigation and subsequent risk assessment will identify whether any further remediation is required. Any removal of contamination beneath the existing runway will be risk based and will weigh advantages of contamination removal against removal of the runway. ▶ This might include the use of defined service corridors or clear service trenches so that maintenance workers are not exposed to potential residual contamination.	Requirement 7 (OEMP) Requirement 11 (contaminated land and groundwater)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	▶ The health and safety file for the construction will include information of ground contamination and will be kept and used to develop risk assessment and method statement including mitigation measures to address these risks in line with health and safety legislation during operational phase.	
Humans / Soils / Ground and coastal water Health hazard due to, or pollution incidents resulting from, spillages during re-fuelling.	▶ The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated through compliance with the COSHH Regulations 2002ci and the Management of Health and Safety at Work Regulations 1999cii. ▶ Fuel, oil and chemical storage and handling will be minimised in the design of the works and safe working procedures / method statements for handling fuel and minimising the potential for spillage will be put in place. ▶ The risks from accidental spillages/leaks during handling and storage of chemicals and fuels will be mitigated by pollution prevention measures and good working practices in accordance with current guidelines. ▶ Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Different treatment methods will be considered, light liquid separator, activated sludge aeration tank and/or forced bed aeration, to treat pollutants with will include exhaust fumes, fuel and lubricant spillages. ▶ Control levels and alarms will be used to identify leaks or overflows. Fuelling system will include automatic shut off drainage system whilst vehicles will be on refuelling stand.	Requirement 7 (OEMP) Requirement 13 (surface and foul water drainage)
Humans/ Soils / coastal and Ground - water Health Hazard / Pollution incidents due to leakage and / or failure from fuel storage tanks.	▶ Further site investigations will be undertaken to inform the detailed design of the fuel farm facility. ▶ The fuel farm will largely be located in SPZ2 with only a small piece in SPZ1. All fuel infrastructure will be in SPZ2 (according to most recent development plans (dated 26/10/2017)). ▶ Design will be undertaken beyond BAT and will include: bund construction, specification of double bunded tanks, bund to be underlain by impermeable membrane (e.g. visqueen), joints to be sealed with a hydrophobic sealant to prevent leakage, and concrete to include	Requirement 5 (detailed design of fuel depot) Requirement 7 (OEMP) Requirement 13 (surface and foul water drainage)

Impact	Mitigation proposed (location where applicable)	DCO Reference
	self-sealing material (e.g. xypex) and to be specified to water impermeable standard with additional reinforcement to limit cracks to e.g. <0.2 mm. ▶ The new fuel farm facility will incorporate suitable blast protection and other measures to control and mitigate any risks to nearby commercial, residential and other property from an incident at the fuel farm. The design of these measures will be discussed with the Health and Safety Executive. ▶ A new airside/landside security facility will be installed in the location of the existing 'emergency access gate' adjacent to the Jentex facility to provide direct airside access for the fuel farm. ▶ Re-fuelling will be in designated areas with active drainage areas and fuel interceptors. Control levels and alarms will be used to identify leaks or overflows. Regular tank inspections will be conducted. Fuelling system will include automatic shut off of drainage system whilst vehicles will be on refuelling stand. In the bunded area, sump drainage will be to a low point from where it will be manually pumped into the drainage system (if clean) or to tanker if contaminated. All pipes will go over the bund wall (no below ground pipes).	
Soils / Ground and coastal water Pollution incidents resulting from pesticide use	▶ There may be a need to control leatherjackets and other pests and in such circumstances a suitable licensed contractor will be employed to carry out such works in accordance with the provisions of the order relating to Pollution Prevention and Control. Environmentally compatible control of leatherjackets and similar bird attractants is possible and would be handled through the advice of an agronomist who is specifically qualified to assess the best available products at the time of use. All such products are subject to EU rules and regulatory compliance. The airport will develop a Wildlife Hazard Management Plan, Habitat Management Plan and Long Grass Policy to control and manage the use of chemicals to prevent them being discharged to ground.	Requirement 7 (OEMP) Requirement 13 (surface and foul water drainage)
Buildings and services Permeation of plastic pipes by contaminants.	▶ The intrusive investigation will inform the package of measures to be included within the detailed design, which could include use of appropriate type and material specification of potable water pipes and other buried services (e.g. use of barrier pipe and/or clean service trenches).	Requirement 4 (detailed design)

Impact	Mitigation proposed (location where applicable)	DCO Reference
Groundwater Contaminated run-off generated by de-icer storage and use.	▶ Application of de-icer will only be in designated areas with active drainage where the run-off is lead to water treatment lagoons. ▶ Different treatment methods will be considered to treat de-icing and washing agents. ▶ Consultation on the types of de-icer to be used will be undertaken with the EA, so that were possible lower risk alternatives could be used.	Requirement 7 (OEMP) Requirement 13 (surface and foul water drainage)
Landscape elements: trees within the site boundaries Potential loss or damage to valued vegetation (including tree roots as a result of construction activity) and screening elements.	▶ Vegetation /tree survey and protection plans considered as part of the design process. ▶ New tree planting to be undertaken to replace that lost. The design of new planting has been located to deliver screening and softening of large-scale built form and is proposed along the southern side of Manston Road (north of the Cargo Facilities) and around the Aviation Business Park. Further planting is proposed east of Spitfire Way. Typical proposed species are likely to be native and non-berrying so as to reduce bird attraction. The width of the planted buffers along the perimeter of the business park is typically 45m whilst elsewhere it ranges from 25-30 m with planting densities at 4 m centres in line with recommendations from the Civil Aviation Authority.	Requirement 10 (landscaping)
Landscape character Direct or indirect effects on valued characteristics, special qualities and character.	▶ Incorporation of enhanced landscape/architectural design, the provision of a landscape masterplan and landscape management to reduce effects of landscape character and ensure that the nature of these effects is neutral or positive as far as possible. The use of building materials, detailing and finish for the roofs and facades of proposed buildings that respond in a positive way to the existing landscape context. However, these details are not yet available so cannot be used to inform the assessment. ▶ In terms of overflying and the potential effects on tranquillity, the noise mitigation strategy has been developed in line with the CAP 1520: Draft Airspace Design Guidance.	Requirement 4 (detailed design) Requirement 9 (noise mitigation) Requirement 10 (landscaping)

Impact	Mitigation proposed (location where applicable)	DCO Reference
All visual receptors overlapped by the ZTV within the study area Changes to existing views, visual amenity and scenic quality: • Introduction of new large-scale features to the view; • Alteration to the landscape character of the view; • Loss of or disruption to existing views of skylines; • Changes to perceptions if movement through increased traffic (including HGV) and air movements; and • Visual effects resulting from light pollution	▶ The provision of screening vegetation as detailed above around the Aviation Business Park, the southern side of Manston Road (north of the Cargo Facilities) and east of Spitfire Way. Localised bunding offers further visual screening in key locations by raising the ground level for planting. It is anticipated that the design of the buildings will be of high quality and that the design treatment, detailing and materials will be used to mitigate the apparent scale and soften the appearance of the buildings. However, these details are not yet available so cannot be used to inform the assessment.	Requirement 4 (detailed design) Requirement 10 (landscaping)

[i] CIRIA (2009) Unexploded Ordnance (UXO) A Guide for the Construction Industry C681 [online] Available at https://www.ciria.org/ItemDetail?iProductcode=C681&Category=BOOK [Accessed 12/02/2018]

[ii] Control of Pollution Act 1974 [online] Available at https://www.legislation.gov.uk/ukpga/1974/40 [Accessed 12/02/2018]