Construction Environmental Management Plan (CEMP)

Dolphin Quay

Emsworth

Version:	3
Date:	14/03/2019

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1.0 Project Description

The existing site comprises of a vacant boat yard that has fallen into disrepair with its associated out buildings, a vacant antiques shop and a vacant two storey office building.

The site is adjoined by the Listed Lord Raglan PH and its beer garden on the Eastern Boundary, with moorings and the river wrapping the Southern and Eastern Boundaries, the Northern Boundary joins onto the public highway known as Queen Street. The site is surrounded by three Listed Heritage Buildings, the Lord Raglan PH as previously mentioned, the Flour Mill to the North and 29 Queen Street to the West. The site falls within the historic core of Emsworth and is located in the Conservation Area.

The proposal is to demolish the existing boat yard buildings, antiques shop and office building, raise the existing floor slab and construct a new coastal defence wall to allow for the development of four houses facing onto Queen Street and two houses facing onto the Mill Pond.

The project will begin by clearing all existing buildings and all waste removed from site. Sea defence work can then start with minimal disturbance to the local waterways. The houses will then be constructed using piled foundations, with traditional masonry construction for the four fronting onto Queen Street and a combination of traditional and steel frame to the two facing the Mill Pond.

The project is set to start in Spring 2019 and is expected to last 16 months.

2.0 Purpose and Scope of the Document

It is vital that construction impacts are considered as these impacts can often be worse than those during the operational phase and as such need to be given due consideration and attention. The information contained in this CEMP provides detail on the proposed construction phasing and a summary of the construction impacts.

The CEMP has been developed to provide the management framework needed for the planning and implementation of construction activities in accordance with environmental commitments identified and legislatory requirements. It aims at reducing the risk of adverse impacts of construction activities on sensitive environmental resources and to minimise disturbance to local residents. This includes ensuring that mitigation measures are implemented, to ensure continued monitoring of the construction phase and to ensure the involvement of interested and affected parties in a meaningful way.

Moreover, the purpose of the CEMP is to set environmental targets for the Contractor and reasonable standards against which the Contractor's performance in this regard can be measured during construction.

3.0 Legislation & Best Practice

A vast amount of environmental and other legislation is applicable to major construction projects. Relevant environmental legislation pertaining to the project is listed below. The Contractor is required to comply with this legislation for all phases of the project.

There are many Codes, Standards, Regulations and Acts of Parliament which cover environmental and related matters. These are referred to where applicable in this Land Base Site Wide CEMP. Notwithstanding these references, compliance with this Outline CEMP will not absolve the Contractor from compliance with all legislative requirements applicable at the time of the construction activities. Wherever this Outline CEMP makes reference to Legislation, Standards or Codes it will be the Main Contractor's responsibility to ensure that the current versions are used at all times.

The following list is intended to serve as a guideline only for the Contractor and should not be considered exhaustive. It would be updated by the Project Manager, the Contractor and their Environmental Managers following the Tender Stage.

The main pieces of legislation that may affect the project are:

- Environmental Permitting Regulations 2010;
- Town and Country Planning Act 1990;
- Environmental Protection Act, 1990;
- Environmental Protection (Duty of Care) Regulations, 1991;
- Pollution Prevention and Control Act 1999
- Hazardous Waste Regulations 2005;
- Noise and Statutory Nuisance Act, 1993;
- Clean Air Act, 1993;
- Wildlife and Countryside Act, 1981 (as amended);
- Ancient Monuments and Archaeological Areas Act 1979;
- Control of Pollution Act 1974;
- National Heritage Acts;
- Conservation of Habitats and Species Regulations 2017

  The contractor will ensure that measures are put in place to comply with all legislation. Legislation provides a minimum standard to adhere to. The construction programme will look, wherever possible, to set an example of best practice, for example with regards to recycling of materials, oil and chemical storage, and maintenance of plant and equipment.

Figure 1: Locality of Project Area and Total Disturbance Footprint

4.0 Project Roles, Responsibilities & Contacts

The interdependencies of positions on the project are shown in Table **2** . Names and contact numbers are correct for this revision, but may change during the project.

It is the ultimate responsibility of the Project Manager to ensure that adequate resources are made available to the Project Team so that the CEMP is effectively implemented during the construction phase. The Project Manager would confirm the commitment of the Project Team to ensure that all environmental aspects are managed in accordance with relevant legislative and contractual requirements, and environmental commitments detailed in the CEMP.

The contractor, is bound to the CEMP conditions through his/her contract with the developer, and is responsible for ensuring that she/he adheres to all the conditions of the CEMP. The contractor must thoroughly familiarise him/herself with the CEMP requirements before coming onto site and must request clarification on any aspect of these documents, should they be unclear. The contractor must ensure that he/she has provided sufficient budget for complying with all CEMP conditions at the tender stage.

The Site Manager will act as the Site Waste Manager would report to the Contract Manager and would be responsible for overall waste management issues arising from the project. These would include:

- Implementation and monitoring of waste minimization, segregation and safe disposal measures;

Dissemination of waste reduction and waste management procedures to all relevant personnel on site.

5.0 Register of Environmental Impacts

The Contractor would be responsible for producing and maintaining a register of Environmental Impacts. This Register will be used to inform the environmental procedures and provide a tool for construction teams when preparing construction method statements or field briefings. This register will also comprise the various risks identified in the ES.

Risks will be identified under the following general headings:

- Heritage
- Noise & Vibration Management
- Dust Management
- Flood Risk and Drainage
- Housekeeping and Waste

6.0 Method Statements

Method statements would be completed on behalf of the Main Contractor or Sub-Contractor by trained engineers or other appropriate experienced personnel, in consultation with on-site environmental staff and, where necessary, environmental specialists. Their production would include a review of the environmental risks and commitments, as identified in this CEMP and risk assessment, so that appropriate control measures are developed and included within the construction process.

Method statements would be reviewed by the site manager and, where necessary, by an appropriate environmental specialist. Where necessary, method statements would be submitted to authorities as appropriate. Method statements would contain as a minimum:

- location of the activity and access / egress arrangements
- work to be undertaken and methods of construction

- plant and materials to be used
- labour and supervision requirements
- health, safety and environmental considerations
- any permit or consent requirements

7.0 Risk Assessments

If requested by the relevant planning authority, certain activities undertaken on site would be subject to a specific environmental risk assessment. Risk assessments would be undertaken by trained staff following an approved procedure which would:

- identify the significant environmental impacts that can be anticipated.
- assess the risks from these impacts.
- identify the control measures to be taken and re-calculate the risk.
- report where an inappropriate level of residual risk is identified so that action can be taken through design changes, re-scheduling of work or alternative methods of working in order to reduce the risk to an acceptable level.

The results of risk assessments, and their residual risks are only considered acceptable if: the severity of outcome is reduced to the lowest practical level; the number of risk exposures are minimised; all reasonably practical mitigating measures have been taken and the residual risk rating is reduced to a minimum.

The findings of the risk assessment and in particular the necessary controls would be explained to all operatives before the commencement of the relevant tasks.

8.0 Non-Compliance Procedures

Given the nature of the works and the environmental sensitivity of the site it is possible, although unlikely, that environmental incidents could occur. Such incidents could include:

- Hydrocarbon spillages into sea, surface or groundwater;
- Silty contaminated runoff into sea, surface or groundwater;
- Fires; and / or
- Extreme dust, noise or vibration events.
- Non compliance with BPM

The Project Manager will establish procedures for responding to environmental incidents. In the event of an environmental incident an Environmental Incidents Register will detail:

- date the environmental incident occurred;
- description of the environmental incident situation;
- impact of the environmental incidents;
- description of the elements of the environment subject to impacts caused by environmental incidents (receptors);
- actions to be implemented in response to environmental incident;
- responsibility for undertaking actions; and
- time frame for implementing actions.

The Project Manager is responsible for ensuring site staff has been fully briefed on how to respond to emergency environmental incidents.

All incidents and accidents would be recorded on a specified form. All incidents would be subject to a full investigation resulting in a report detailing the remedial measures taken and the root cause analysis to prevent recurrence. The Contractor Environmental Manager would instigate an appropriate change in procedures where necessary.

All incidents occurring within the construction site must be immediately reported to the Project Manager in order for them to notify the appropriate parties as required, including the nominated clean-up contractor, the Environment Agency, and other relevant local authorities.

Spillages

A spill response plan, which all staff are made aware of, will be implemented in the event of an environmental incident. This plan will take into account any Client specific requirements. The appropriate incident response equipment will be available next to particularly sensitive activities (e.g. overpumping) or areas of a site (such as fuel storage areas).

A supply of spill containment and treatment equipment and materials will be available near storage areas of hazardous materials at all times in sufficient quantities to deal with small-scale spillages and all staff will be aware of where this equipment is stored.

Any contaminated ground will be removed immediately and stored outside the sensitive area for testing and removal from site.

All incidents occurring within the Site must be immediately reported to the Site Manager in order for them to notify the nominated clean-up contractor. The incident will be recorded and the Environmental Manager will conduct an investigation into the cause and effect of the incident, recommending an appropriate change in procedures where necessary.

9.0 Complaints Manager

It is important that members of the public or interested parties are able to make complaints regarding the construction of the scheme. Complaints provide a valuable feedback mechanism helping to minimise potential impacts on sensitive features and allowing construction practices to be refined and improved.

All complaints received will be investigated and a response (even if pending further investigation) is to be given to the complainant as soon as reasonably practicable.

The Contractor will maintain a separate register for dust, noise and vibration complaints, together with any remedial actions taken and responses given. The Complaints Register will be available for scrutiny by local authorities if required.

All employees of the main civil contractor and sub-contractors will be trained to report any feedback (be it complaints and or praise) from site visitors, neighbouring property owners or the surrounding community to the Contractor Manager's Office.

10.0 Communications with the Public

A signboard would be placed at the entrance of the access road informing the public of the construction activities taking place.

The Project Team will communicate proactively with any local residents / businesses and other members of the public that may be affected by construction activities and regularly liaise with the Local Authority. This is particularly important in the event that construction work outside of the standard site working hours is necessary. Responsibilities for such communication will also be agreed within the Project Team.

Non-conforming activities, processes or products would initiate a Non-Conformance Report, which would identify the nature of the problem, the proposed corrective action, action taken to prevent recurrence of the problem and verification that the agreed actions have been carried out. All non-conformances identified and the corrective action taken would be summarised in a monthly report

Should the Contractor be in breach of any of the specifications contained in the CEMP, the Project Manager shall, in writing, instruct the Contractor responsible for the incident of non-compliance regarding corrective and/or remedial action required, and specify a timeframe for implementation of these actions. The Contractor shall be responsible and shall bear the cost of any delays, corrective or remedial actions required as a result of non-compliance with the specifications and clauses of the CEMP.

11.0 Site Establishment & Construction Site Layout Plan

SITE ESTABLISHMENT

Site establishment would take place in an orderly manner and all amenities would be installed before the main workforce move onto site.

A method statement would be provided by the Contractor after award of tender that includes the layout of the construction site, management of ablution facilities and wastewater management. The Contractor shall supply a wastewater management system that will comply with legal requirements and be acceptable to the relevant planning authority.

CONSTRUCTION SITE LAYOUT

PLAN

After award of tender the Contractor will develop a detailed Construction Site Layout Plan indicating the intended use of the site, and will include:

- site access during construction (including all entry and exit points);
- all material and equipment storage areas (including storage areas for hazardous substances such as fuel and cement);
- construction offices and other structures (if required);
- security requirements (including temporary and permanent fencing and lighting) and accommodation for security staff;
- areas where material is to be stockpiled (including construction materials and topsoil);
- solid waste collection facilities;
- temporary construction phase stormwater control measures;
- provision of temporary ablution facilities for construction personnel.

The construction area would be clearly demarcated on the site plan, and all other areas must be considered no-go areas for the construction personnel.

The construction site layout plan would be made available to the Project Manager for written approval. Throughout the period of construction, only the approved areas on the construction site layout plan would be used for the storage of construction material, topsoil, machinery, equipment and establishment of site offices.

FIRE PREVENTION

All necessary measures will be taken to minimise the risk of fire and the Contractor will comply with the requirements of the local fire authority and the Health and Safety regulations.

To reduce the risk of fire occurring within the Site:

- All enclosed working areas will be non-smoking. Specific areas within the worksites will be designated as smoking areas and will be equipped with containers for smoking waste. These will not be located at the boundary of working areas adjacent to neighbouring land.
- Open fires will be prohibited at all times.

Fire prevention facilities must be present and easily accessible at all storage facilities Fire fighting equipment is to be present on site at all times as per the Health and Safety regulations.

MATERIALS HANDLING, USE AND STORAGE

During materials handling and storage the following measures will be employed by the Contractor:

- only designated areas would be used for the handling or storage of construction materials;
- delivery drivers would be appropriately supervised by an individual familiar with all procedures and restrictions on site. This is of particular importance during off and on-loading of materials;
- all dust-generating materials transported to and from site would be covered by tarp;

- stockpiles would be dampened to minimise the potential for dust generation;
- stockpiles would be kept to the minimum practicable height (generally 2m) and use gentle slopes;
- stockpile surfaces would be compacted, if necessary;
- storage time of materials on site will be minimised.

STORAGE OF HAZARDOUS SUBSTANCES

The Contractor will make provisions to ensure that all potential contaminants stored on the construction site are controlled in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations 1999, PPGs, and are properly isolated and bunded and that no oil or other contaminants are allowed to reach watercourses or groundwater, including aquifers.

All surface water or other contaminated water which accumulates in the bund will be removed by manually controlled positive lift pumps and not by means of a gravity drain. This water will be removed from site and discharged into a public sewer in consultation with the relevant authorities.

Spill response kits containing equipment appropriate to the quantity and types of materials present on site will be available in the event of a fuel spillage and personnel will be trained in their use

Storage areas would be clearly signed and would be regularly monitored for spills. Any leaking containers will be repaired or removed from site

A register will be kept on all hazardous substances and be available for inspection at all times. All hazardous substances used on site would be handled in accordance with the manufacturer's specifications and legal requirements.

The Contract Manager would identify and maintain a register of all activities that involve the handling of potentially hazardous substances, as well as devise and supervise the implementation of protocols for the handling of these substances. This will include all fuels, oils, lubricants and grease.

The Contractor must ensure continuous compliance with all the above conditions under the monitoring of the Environmental Managers (in compliance with Environment

Agency regulations).

EQUIPMENT STORAGE AREAS

Where possible and practical all maintenance of vehicles and equipment will take place in the site compound area. During servicing of vehicles or equipment, a suitable drip tray will be used to prevent spills onto the soil, especially where emergency repairs are effected outside the site compound area. Leaking equipment shall be repaired immediately or be removed from site to facilitate repair. The site compound area will be monitored for oil and fuel spills.

12.0 Health & Safety

HEALTH AND SAFETY

Safety is of paramount importance on all construction sites. The following sections highlight a number of safety aspects but these are by no means comprehensive. It is the Contractor's responsibility to ensure full compliance with all applicable health and safety legislation.

HEALTH AND SAFETY AT WORK

ETC. ACT 1974

All site work will be carried out under the provisions of the Act, and to the satisfaction of the local HSE officer. The Health and Safety manager will ensure compliance with all health and safety legislation.

EMERGENCY CONTACTS AND

PROCEDURES

The Contractor will appoint a suitably qualified Health and Safety Officer. The Contractor will prepare and maintain an Emergency Contact Procedure for each work site which will be displayed prominently at each site. These Procedures will be followed in any site emergency.

The procedures will contain emergency phone numbers and the method of notifying Local Authorities for action by the Contractor and the Developer. Copies of the Procedures will be issued to the Local Authorities, community councils, the Fire Brigade, the Police, the Ambulance Service and the relevant statutory authorities.

Emergency telephone numbers for the Contractor's key personnel will also be included for the developer's use in an emergency.

Health and Safety briefings will be made to all staff before they enter the site initially with regular updates and awareness-raising.

General provisions concerning disposal of contaminated materials are described in Section 4.21.

HEALTH AND SAFETY PLAN &

HEALTH AND SAFETY FILE

Prior to commencement of construction works the Contractor will be required to produce a Health and Safety Plan (HASP) to protect his employees during the works they shall undertake.

This will highlight the presence of potential risks to ensure that the contractor is aware of the requirements for Personal Protective Equipment.

This CEMP shall be considered when preparing the HASP. Work practices required by the CEMP are not intended to compromise health and safety in any way. The HASP will be approved by the Project Manager prior to the contractor commencing works.

A copy of the HASP will be compiled on a central register held by the Contract Manager.

13.0 Site Housekeeping

A 'good housekeeping' policy will be applied at all times. This will include the following measures:

- rubbish will be removed at frequent intervals and the site kept clean and tidy;
- all enclosed working areas will be non-smoking. Specific areas within the worksites will be designated as smoking areas and will be equipped with containers for smoking waste. These will not be located at the boundary of working areas adjacent to neighbouring land;
- any waste susceptible to spreading by wind or liable to cause litter will be stored in enclosed containers;
- where required the construction site will be screened by the Contractor to ensure that there is no unacceptable visual intrusion in the area of the site;
- the Contractor will regularly inspect all working areas to ensure compliance;
- a nominated representative of the Client may carry out inspections of the site at any time without prior notice of time and place of the inspections.

14.0 Waste Minimisation & Management

A variety of different materials will be used for construction of the development. The project also involves removal of existing buildings and services which will produce waste materials.

A key requirement for the contractor would be to manage waste production throughout the construction period. Sustainability is likely to be one of the selection criteria for suitable contractors for the project. Waste management will comply with Waste Management Regulations 1994 and Duty of Care Regulations 1991, and will be finalised in consultation with the Environment Agency (EA).

The key to minimising the production of waste is to implement the waste hierarchy of Reduce, Reuse, Recycle, Dispose. Reducing the amount of materials used also has the effect of minimising use of natural resources and reducing costs. Careful management and phasing of the development will ensure that this is the case.

Waste material including concrete, stone, tiles, wood, glass, wiring, plumbing, paint containers, other than that which can be recycled and re-used on site, will be gradually removed from site to be disposed safely by an agreed Waste Operator. Excavated material that cannot be reused, as backfill in the works will be disposed of off-site.

The aim will be for re-use on site in order to minimise traffic movements, but surplus quantities are inevitable. Possible licensed disposal sites will be identified by the Contractor after award of tender.

The Contractor will comply with approved guidance and procedures in the identification, handling, storage, recovery and disposal of waste.

Method Statements prior to demolition and construction activities for the site would be prepared by the contractor to identify waste types likely to be generated and procedures to be employed in their handling, transportation and disposal.

A waste management plan will be produced by the contractor in line with "Waste Management – A Duty of Care" (DoE 1991)". Reference would need to be made to the document S*ite Waste Management Plans: Guidance for Construction Contractors and Clients: Voluntary Code of Practice (DTI, 2004)*.

The Contractor will be required to employ the following specific waste management measures :

- appointment of a Site Waste Manager
- all necessary parties would retain Duty of Care transfer notes or special waste consignment notes as appropriate;
- records of waste disposal will be maintained by the Contractor and kept on file;
- domestic wastes from individuals would be sorted in approved containers before haulage to safe disposal by agreed Waste Operators;
- all waste would be separated, stored and contained securely and labelled;
- suitable licensed waste contractor(s) would be employed and their licence would be audited;
- the waste management scheme and activities would be monitor and audited periodically;
- waste disposal would be minimised through good housekeeping;
- checking all delivered products for accuracy, defects and breakages on arrival and returning them rather than retaining them on site for later disposal;
- construction materials will be stored in a safe location where they will not be damaged, which can cause unnecessary waste.;

- stockpiling re-useable waste such as timber skids, pallets and drums at a suitable location for salvage;
- all waste chemicals and other toxic materials would be stored and collected for safe transport to locations approved by regulatory authorities;
- contaminated soils (if any) shall be managed according to their concentration, leachibility and area affected and disposed of in consultation with relevant environmental protection authorities.
- managing hazardous wastes in accordance with all relevant regulatory requirements;
- any soil contamination would be managed to prevent health risks to work personnel and the community in general.
- waste volumes will be registered including details of the type of waste collected, amounts, and where it was disposed.

15.0 Water Resources / Air Quality (Dust & Odour Control)

To prevent any hazardous or contaminated run-off all polluting materials stored on site would be located on a bunded impermeable base. All refuelling activities to be carried out on a bunded impermeable base. All plant services to be carried out with drip tray fitted. All spillages would be dealt with immediately with emergency spillage kits kept on site. Site-specific procedures for spillage events would be developed.

Air Quality (Dust and Odour Control)

The dust emitting activities respond well to appropriate dust control measures and any adverse effects can be greatly reduced or eliminated.

Dust control will be in accordance with BRE Report 456 – Control of Dust from Construction and Demolition Activities.
A construction objective will ensure that there are no nuisance dust emissions from the construction site. To achieve this, BMP will be used to avoid the circumstance that leads to the generation of the dust nuisance.

As appropriate, mitigation measures will include:

- Site roads and work areas would be swept and sprayed with water in prolonged spells of dry weather;
- adherence to speed limits for all vehicles;
- stabilisation of disturbed areas as soon as possible after disturbance, through the introduction of vegetation

- ensuring that surfaces are constructed to their final design requirement as quickly as practicable
- wheel washing facilities would be provided and maintained in use at all times during the construction period
- any complaints or claims emanating from the lack of dust control will be attended to immediately by the Contractor.
- materials, which arise from the preparation of the site, should be stockpiled and where possible used for the redevelopment process, thus reducing the number of off-site vehicles movements required to bring such material onto the site.
- accumulation of dust on and off-site would be monitored regularly, if needed corrective actions would be undertaken;
- all access roads should be inspected for accumulations of dust and mud; all such depositions would be removed as soon as possible after they have been identified;
- handling areas should be maintained in a clean condition.

ODOUR

There will be no construction activity that has the potential to release any significant malodorous substances. Thus no specific mitigation measures are required.

16.0 Noise & Working Hours

Works shall comply with the BS 5228 (2009) Code of Practice – Control of Noise for Construction and Open Sites.

The contractor shall select the quietest
External construction activities **must only take place during daylight hours** and also should not take place other than between 08:00 and 18:00 hours on weekdays and 08:00 and 13:00 hours on Saturdays, excluding public holidays, unless otherwise agreed in writing by the relevant planning authority. The level of noise emitted from the site shall not exceed 37dB LAeq, 1-hour between 07:00 and 23:00 and 26dB LAeq, 1-hour at any other time, as measured in a free-field location within the curtilage of a residential premises (or in the case of flats at an equivalent point as determined by the LPA not closer that 3.5m from the affected facade), excluding during demolition and construction of the development hereby approved.

In the event that public complaints and noise measurements indicate that noise levels have significantly risen at sensitive receptors, the Contractor would take all reasonably practicable mitigation measures to reduce the noise impact and / or prevent recurrence e.g. change the method of working, use mobile noise barriers.

On completion of the enclosure (being roof, walls, windows and doors) of each building, internal construction work within that building may take place outside of the above hours provided that doors and windows remain closed with blinds fitted to prevent light spill during construction activities.

The Contractor will maintain records of time worked and the deliveries received or dispatched to show compliance. The Contractor will have a general duty to take all practicable measures to minimise nuisance from noise and vibrations.

Without prejudice to other legal and contractual requirements, the Contractor will comply with the following mitigation measures:

- Principles of the "Best Practicable Means", as defined in the Control of Pollution Act (1974), would be used to reduce noise and vibration.
- Construction activity outside permitted working hours will be restricted to the enclosure (being roof, walls, windows and doors) of each building; construction work within that building would take place outside of the above hours provided that doors and windows remain closed during construction activities.
- Noisy plant or equipment will be sited as far away as is practicable from noise sensitive receptors.
- Plant will be used in an appropriate manner to minimise noise emissions including regular maintenance of the plant.
- Construction Contractors will adhere to the codes of practice for construction working and piling set out in BS 5228 'Noise Control on Construction and Open Sites' insofar as these are reasonably practicable and applicable to the construction works.
- Vehicles and mechanical plant used for the purpose of the works would be fitted with effective exhaust silencers and would be maintained in efficient working order. All plant would comply with relevant EU/UK noise limits applicable to that equipment or is no noisier than would be expected from the noise levels quoted in BS 5228:1997.
- Care would be taken when loading or unloading vehicles or dismantling scaffolding or moving materials, etc. to reduce impact noise. All operatives undertaking such activities should be instructed on the importance of handling the scaffolding to reduce noise to a minimum.
- Deliveries would be programmed to arrive during daytime hours only, if practical.
- Care would be taken when unloading vehicles to minimise noise. Delivery vehicles should be routed so as to minimise disturbance to local residents.
- Machines in intermittent use would be shut down in the intervening periods between work or throttled down to a minimum.
- The contractor shall select the quietest available type of plant for all site operations.

- Noise from fixed plant and equipment shall be contained within suitable acoustic enclosures or behind acoustic screens to minimise nuisance.
- Vehicles and mechanical plant will be fitted with exhaust silencers and maintained in good and efficient order.
- Silenced compressors shall be used fitted with lined and sealed acoustic covers or enclosures that will be kept closed whenever the machines are in use.
- Silencers of the type recommended by the manufacturers will be used on any pneumatic percussive tools.
- Stationary plant will be positioned with due consideration to neighbours with mach8ines only used intermittently shut down when not in use or left in idle mode during non-operational periods.
- Noise plant and equipment shall be sited away from noise sensitive receptors and barriers will be used to reduce the level of noise at any nearby receptors.

VIBRATIONS

Construction activities will be carried out in such a way that vibrations arising will not cause significant damage to adjacent structures. The Contractor will comply with recommendations and guidance obtained from BS7385-Evaluation and Measurement of Vibration in Building- Part 2.

Due to the distance to the nearest residential properties it is unlikely that the measured ground vibrations will exceed a peak particle velocity of 1mm per second at any occupied property and 3mm per second at any other property in any orthogonal direction.

Compliance with these limits will not absolve the Contractor from a duty of care and wider contractual responsibilities.

Piling operation shall include the use of CFA piling for piles supporting buildings

Sheet piles will be vibrated into place until refusal when percussive methods will be used to install the sheet piles to their design depths.

Table 2: Project Roles, Responsibilities and Contact Details

ROLE	NAME	CONTACT DETAILS	RESPONSIBILITY	
Project Manager	Neil Popplewell	neil.popplewell@lockside.ltd	Planner of site safety	
Site Manager	Mark Franklin	mark.franklin@lockside.ltd	Day to day site safety supervisor	
HSE Representative	Basingstoke	Priestley House Priestley Road Basingstoke RG24 9NW	Health and Safety Executive	

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Heritage

HERITAGE			
Objective(s)	To minimise the impacts of development, operation and maintenance of the Project on the heritage values in the Project area.		
Management Strategy	Ensure heritage impacts are minimised, and impacts outside of the approved disturbance area are avoided.		
		Responsibility	**Timing**
Control(s)	Ensure that the protective measures are implemented adjacent the Lord Raglan PH as identified within the party wall award. Ensure personnel undertake appropriate inductions.	Project Manager	Throughout Project
Performance Indicator(s)	No disturbance of heritage values outside of the approved disturbance area. No complaints or allegations of unauthorised disturbance of heritage values.	Project Manager	Throughout Project
Monitoring	Daily monitoring of disturbance footprint. Regular monitoring of all heritage sites for impacts.	Project Manager	Throughout Project
Reporting	Incidents are to be reported immediately to the Project Manager.	All site personnel	Throughout Project
Corrective Action(s)	Cease works in the impact area immediately. Review and modify procedures if necessary before recommencing works.	Project Manager	Throughout Project

Noise Management

NOISE MANAGEMENT			
Objective(s)	1. To minimise the impacts of noise on the amenity of the surrounding areas. 2. Construction activities undertaken in accordance with *AS 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition* Sites. 3. Construction activities undertaken in accordance with *Environmental Protection (Noise) Regulations 1997*		
Management Strategy	Noise to be managed primarily through administrative and equipment controls during the construction phase.		
		Responsibility	**Timing**
Control(s)	All equipment used during the construction phase to be regularly maintained to ensure efficient operation; Pre-start checks and maintenance schedules to ensure equipment performance is as required; Noise-dampening equipment to be used on equipment with excessive noise generating characteristics; Construction activities in accordance with AS2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites.	Project Manager	Throughout Project
Monitoring	Daily inspection of works sites to occur Service logs for equipment/machinery used on site	Project Manager	Throughout Project
Reporting	Any complaints or incidents to be reported to the project manager.	All Site Personnel	Throughout Project
Corrective Action(s)	Investigate cause of excessive noise Implement corrective measures prior to the recommencement of site works	Project Manager	Throughout Project

NOISE MANAGEMENT			
	Reschedule of noise-generating activities to reduce noise annoyance		

Dust Management

DUST MANAGEMENT			
Objective(s)	1. To ensure the impacts of dust on adjacent areas and the community are minimised.		
Management Strategy	Dust issues managed principally by emission controls at source, and administrative controls during works.		
		Responsibility	**Timing**
Control(s)	Dust Management: Site hoarding is to be erected all around the perimeter of the site either solid wooden or herras fencing with dust sheeting on. During the demolition phase water will be sprayed to keep dust to a minimum. Water from the sea will be pumped into a holding tank so as to minimise the use of fresh water. All surplus water will go through a settlement tank before going back into the sea. A traffic management plan will be in place where all vehicles will have wheels washed before going back onto the public highway. Consideration and care will be taken at all times to ensure that dust will be kept to a minimum.	Project Manager	Throughout Project
Monitoring	Daily inspection of works sites to occur, including: • visual check for dust crossing the site boundaries • visual check of high potential dust areas, such as haul roads, sea bed, stockpiles and operational areas.	Project Manager	Throughout Project
Reporting	Any complaints or incidents to be reported to the project manager.	All Site Personnel	Throughout Project
Corrective Action(s)	Investigate cause of excessive dust Implement controls immediately (e.g. water carts)	Project Manager	Throughout Project

DUST MANAGEMENT			
	Implement corrective measures prior to the recommencement of site works Implement administrative controls if required, such as rescheduling of dust generating activities to more favourable weather conditions.		

Use of Marine Water for Dust Suppression

USE OF MARINE WATER FOR DUST SUPRESSION			
Objective(s)	1. To ensure the use of marine waters for dust suppression does no impact adjacent areas		
Management Strategy	All surplus water will go through a settlement tank before going back into the sea.		
		Responsibility	**Timing**
Control(s)	Waters applied sufficient to address dust suppression only, and excessive runoff waters not created. All surplus water will go through a settlement tank before going back into the sea. Filling of the header tank (site storage) to be triggered by float mechanism in tank, indicating low and high level. Operator to maintain watch during filling operation to ensure water cart not over-filled.	Project Manager	Throughout Project
Performance Indicator(s)	No evidence of salinity-related impacts to adjacent areas.	Project Manager	Throughout project
Monitoring	Daily inspection of work sites to occur, including: • visual check for application of dust suppression water • visual check of holding tank	Project Manager	Throughout project
Reporting	Any issues to be reported to the Project Manager.	Project Manager	Throughout project
Corrective Action(s)	Investigate cause of excessive dust control waters Implement controls as required (e.g. diversions) Review issue with water cart operators and/or Construction Manager Implement administrative controls if required, such as rescheduling of dust generating activities to more favourable weather conditions.	Project Manager	Throughout project

Housekeeping and Wastes

HOUSEKEEPING AND WASTES			
Objective(s)	Reduce waste volume, maximise recycling, reuse and recovery, prevent any construction waste/litter entering the environment.		
Management Strategy	Minimise environmental impacts through appropriate controls and site inductions of employees and sub-contractors.		
		Responsibility (Role)	**Timing**
Control(s)	Provide appropriate waste bins, type, volume and service frequency to accommodate anticipated waste streams. All loads arriving or leaving the site will be appropriately secured. Provide information regarding waste management in site specific inductions, including waste separation and importance of securing vehicle loads. Ensure licensed contractors are used to collect controlled wastes	Project Manager	Throughout project
Performance Indicator(s)	Hazardous materials all appropriately disposed. Recycling of all recyclable construction metal waste Records kept of waste leaving site.	All site personnel & Project Manager	Throughout project
Monitoring	Daily inspection of work site to occur. Review of waste bins (% full, time to next service). Waste volumes leaving site from waste contractors	Project Manager	Throughout project
Reporting	Environmental incident reports.	Project Manager	Throughout project
Corrective Action(s)	Investigate cause of inappropriate waste disposal Review cause of issue and develop response, such as variation to bin size, service schedule or waste separation awareness. Implement controls	Project Manager	Throughout project