

Rolls – Royce PLC

Construction Environmental Management Plan



1.1. Introduction

The purpose of this Construction Environmental Management Plan (CEMP) is to define the system for managing environmental issues on the Project. All staff assigned to the Project shall follow the requirements of this Plan and the Procedures and Instructions referenced therein.

This CEMP is prepared by McLH to illustrate the environmental considerations and methodology for undertaking the proposed works.

This plan will address the construction phase, but not limited to specific requirements for:

- Project specific waste management and waste minimisation;
- Pollution prevention, identification of potential risks and proposed mitigation;
- Good working practices and actions to be taken in the event of an incident;
- Induction of site workers in ecological, environmental and energy requirements;
- Control measures to manage the potential impacts and mitigation measures relative to existing surveys;
- McL&H commitment to ensuring that sustainability and environmental impacts are assessed and minimised during the project
- Commitment to ensuring that works are carried out in a manner so as to only provide positive social impacts.

Project Title:	Rolls – Royce PLC	Project Number:	Tender – G220041
Project Start Date:	01/03/2024	Project Completion Date:	TBC
Type of Contract:	<input checked="" type="checkbox"/> Design & Build <input type="checkbox"/> Traditional		
Form of Contract:	JCT Design and Build form of contract.		
Contract Value:	TBC		
Client Full Name & Address:	Rolls Royce PLC Gypsy Patch Lane Little Stoke Filton Bristol BS34 7QE		

1.1.1 Scope of Works / Site Set Up

The scope of the works includes the demolition of several existing building and the subsequent construction of a new facility and associated infrastructure on the east side of their Bristol site.

Demolition of existing buildings shall take place by another contractor prior to McLH arriving on site which also includes service diversions, new sub-station, project area groundworks, road construction, relocations and building demolitions, new waste compound, sub-mains ductwork and cabling and IT ductwork and cabling.

This CEMP shall therefore be related to the development of a new build manufacturing and assembly facility together with office space and associated external works.



Site set up shall include temporary buildings for the construction of the works and will consist of secure modular units which will be stacked. These will include offices, meeting rooms, toilets, welfare facilities (showers/changing room/drying room).



Site Logistics – Site Compound Area

1.1.2 – Location of the project



The Rolls-Royce Bristol site is located at Gloucester Rd, Little Stoke, Bristol, BS34 7Q, North of Bristol on the east side of the A38 between Filton and Almondsbury, two miles south of M5 junction 16.

National Grid Reference: ST 60986 80958.

Access to the site is to be from Gypsy Patch Lane. Construction traffic will be required to use the eastern boundary road and will not need to report to any of the Rolls-Royce gatehouses.

Figure 1. Proposed Site

1.2 Needs and Expectations of Interested Parties

The information contained within this Plan sets out how we will comply with:

- All Environmental Regulatory requirements;
- ISO Standards (14001, 50001 along with 9001 as appropriate to the context);
- Client Rules and Procedures;
- McLaughlin & Harvey's (McLH) Integrated Management System;
- Planning conditions for the Project;
- Recommendations from any environmental surveys undertaken to identify potential environmental impacts locally;
- Taking cognisance of industry guidance as appropriate; and
- Local and Community considerations.
- Local Planning Policy; Policy CS9.11, Policy PSP 8, Policy PSP 21.
- The Waste (England and Wales) Regulations 2011
- The Hazardous waste Regulations 2005
- Construction (Design and management) Regulations 2015
- NPSE (Noise Policy Statement for England)

1.2.1 – Pre-Development Works

A series of enabling works is being undertaken on the Bristol Campus prior to the possession of the site. These enabling works will be undertaken whilst the design is being developed and the timescale for these works are currently programmed to complete in December 2023, subject to key dates for remediation being achieved.

Pre-development surveys have been carried out onsite, where outdated buildings were demolished under separate planning permission to enable the construction of new development on existing footprint.

A range of surveys have been carried out to inform development methodologies. The following documents can be read in conjunction with this plan.

- Method Statement for Demolition Phase (Integral UK)
- Preliminary Ecological Appraisal (Arbtech)
- Bat roost survey
- Habitat survey
- Construction Noise and Vibration Assessment

A number of additional surveys shall be conducted ahead of main construction which will further inform this plan and planned onsite works.

1.2.2 - Local Community & Other Stakeholders

Description:

The location of the site has an approximate area of 5.05ha and comprises of a portion of Rolls-Royce existing facility.

The nearest residential properties to the proposed new facility are located approximately 105 metres to the east and approximately 380 meters to the north-west from the nearest proposed infrastructure. Further residential properties are located to the north, west and east at significantly greater distances.

The site is located within an urban area of north Bristol and surrounded by light industrial and commercial buildings to the North, West and South, and residential development to the East.

Residential areas of greatest impact are noted below:

- Redfield road
- Ravenscroft Court
- Rossall avenue
- Lawford Avenue
- Bush Avenue
- Gloucester Road

	<p>It is also noted that there is a railway line and train station (Patchway) directly adjacent to the east of the site over the embankment, and so, operations will be carried out in a manner so as to minimise any potential disruption on services. This includes securing loads onsite and also preventing any materials or litter from escaping the site by using designated material compounds. Staff and contractors will also be encouraged to use this network as well as other forms of public transport.</p> <p>With works taking place within the existing Rolls Royce facility, all existing buildings adjacent to the site will remain fully occupied and operational throughout the construction phase and so McL&H and associated contractors will ensure that Rolls Royce site rules are fully communicated and understood and are included within McL&H site rules.</p> <p>Access to the site is to be from Gipsy Patch Lane. Construction traffic will be required to use the eastern boundary road and will not need to report to any of the Rolls-Royce gatehouses. McL&H will ensure that access to the Rolls-Royce Bristol northern car-park remains operational throughout the Contract Period.</p> <p>McL&H have demonstrational experience of operating in areas in close proximity to residential properties and where operations onsite must continue with no alteration or nuisance. As such, we will ensure that all steps are taken to ensure that no nuisance arises from our operations and should this / complaints arise then we will ensure that these are taken on board, recorded, investigated and a sufficient close out / response given.</p>
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1.2.3 - Operational Hours

Proposed hours of operation for construction will be as follows:

Monday to Friday:	In line with South Gloucestershire Council guidelines and any further times to be agreed on an ad hoc basis as required for engineering purposes.
Saturday:	In line with South Gloucestershire Council guidelines and any further times to be agreed on an ad hoc basis as required for engineering purposes.
Sunday:	In line with South Gloucestershire Council guidelines and any further times to be agreed on an ad hoc basis as required for engineering purposes.
Bank Holidays:	In line with South Gloucestershire Council guidelines and any further times to be agreed on an ad hoc basis as required for engineering purposes.

Where prior discussions/arrangements with the Regulatory Authorities have been made, low impact works may take place out with these hours.

In case of Emergency deviation from the above working:

- Hours permission must be sought from the Operations Director.
- The immediate residents and businesses will be informed by a site team member by the use of knocking on doors or letter drop, explaining the reasons why work will overrun, the type of work being carried out and the estimated time that the work will cease.
- Contact details for the site supervisor will also be given.
- All complaints will be logged, and a record kept.
- Works should be planned to minimise any disruption to the local community.

We have demonstrable experience of carrying out works in close proximity to industrial, commercial and residential receptors and we will design, plan and carry out our works so as to minimise any potential impact on the local surroundings.

1.3 Environmental Roles, Responsibilities and Authorities

The Site Environmental Representative is the primary point of contact for all environmental related matters on site and will be responsible for ensuring that all relevant management documentation is completed as required.

Additional project specific duties and responsibilities are noted in the Health, Safety & Quality sections of the SHEQ Project Plan.

All MCLH Employees and Sub-Contractors have the authority and responsibility to protect the environment at all times during the Project.

1.3.1 - Responsibility for various environmental matters is detailed below:

Obtaining a Site Ecological Survey:	Client
Obtaining a Site Heritage Survey:	Client
Supplying Welfare Facilities:	MCLH
Disposing of Sewage:	MCLH – TBC
Disposing of Waste:	
Construction	MCLH – TBC
Kitchen/Office	MCH - TBC
WEEE Waste	MCH via nominated mechanical and Electrical contractor
Hazardous Waste	MCH via nominated contractors.
Liaison with Regulators:	MCLH
Obtaining Construction Water Discharge Consent:	MCLH through Bristol Water if required
Liaison with Neighbours:	MCLH; Site management
Dealing with Complaints on Site:	MCLH; Site management and through the Considerate Constructor scheme
Liaison with Highway Agency/Police/ traffic implication:	MCH
Site Security	MCLH
Ecological Monitoring:	MCH – If required for further surveys
Archaeological Monitoring:	Client
Road Sweeping/Dust Abatement:	MCLH – Road sweeper on site as required, water spraying during groundworks.
Monthly Data Recording:	MCLH

Responsibility for particular aspects may be transferred during the course of a contract. A note of this should be made above, together with the stage when it is expected to happen.

1.3.2 Environmental Roles, Responsibilities and Authorities

McLH Operations Director

The Operations Director's responsibilities are to:

- Allocates the appropriate resources for effective operation and improvement of Construction Operations;
- Carries out Leadership visits to site, monitoring action to be taken and promoting best practice;
- Monitors project inspections, reviews and audits of all strategies and action plans carried out within their area of responsibility, providing appropriate documented feedback to the Board of Directors as applicable;
- Ensures all significant aspects of Construction Operations are managed and controlled to prevent, reduce and mitigate negative impacts to maintain, enhance and promote good practice across the business;
- Assist in the development of energy and environment strategies and action plans encompassing Company and Project objectives.

McLH Operations/Contracts Manager

The Operations/Contracts Manager's responsibilities are to:

- Provides adequate resources for effective operation and delivery of the project, ensuring all Managers and Personnel within their area of responsibility are competent and adequately trained;
- Carries out Leadership visits to site, monitoring action to be taken and promoting best practice;
- Assist in the development of energy and environment strategies and action plans encompassing Company and Project objectives;
- Ensures all Personnel, Third Party Personnel, Contractors and their Employees are made aware of environmental policies and action plans which have been put in place;
- Ensures records of continuing professional development activities are compiled and issued to the designated Training Coordinator for review;
- Monitors project inspections, reviews and audits of all strategies and action plans carried out within their area of responsibility, providing appropriate documented feedback to the Board of Directors as applicable;
- Ensures the Environmental Plan is reviewed and approved along with associated workplace specific hazard identification and risk assessments prior to works commencing;
- Monitors the performance of Sub-Contractors and feeds back to the Construction Director, Group SHEQ Director and Commercial Director as appropriate;
- Ensures appropriate safety equipment and necessary welfare facilities are provided and maintained for the project.

McLH Project/Site Manager

The Project/Site Manager's responsibilities are to:

- Ensures Environmental responsibilities defined for the project are correctly assigned and carried out on site;
- Allocates the duties to the appropriate supervisor(s) or foreman to ensure that a workplace specific statement of the named manager's responsibilities is produced and issued;
- Ensures work is carried out within the project environmental objectives and action plans;
- Ensures Personnel, Third Party Personnel, Contractors and their Employees are made aware of the Environmental policies and plan for the project which have been put in place;
- Provides adequate resources for effective operation and delivery of the project, ensuring all Managers and Personnel within their area of responsibility are competent and adequately trained;
- Ensures records of all training received and other training development activities are compiled and issued to the designated Training Coordinator for review;
- Reviews Supervisors and Foremen's SHEQ performance in respect of the responsibilities assigned to them;
- Leads on taking action following project inspections, reviews and audits of all strategies and plans within their areas of responsibility, providing appropriate documented feedback to the Group Head of SHEQ and Operations Manager.
- Ensures all project incidents, dangerous occurrences, near misses and injury events are reported via the '**Accident/Incident Notification**' (IMS Doc Ref. 2062) or '**Safety & Environmental Observation Report (SOR)**' (IMS Doc Ref. 1509) for non-pollution event incidents, and are fully investigated;
- Produces the project Environmental plan prior to works commencing;
- Develops Impacts and Aspects Register;
- Oversees all necessary project site specific inductions to be carried out and documented;
- Ensures appropriate safety equipment and necessary welfare facilities are provided and maintained for the project;
- Monitors the performance of Sub-Contractors and feeds back to Senior Management;
- Ensures that all personnel are adequately trained and instructed in relation to their duties.

McLH Design Manager

Design Manager's responsibilities are to:

- Coordinates design activities for the project;
- Investigates the elimination of waste and quality defects, instigating design change where practicable;
- Inspects work performed to ensure it is in compliance with the design;
- Evaluates and considers energy performance opportunities in all designs and processes.

All Employees (including Sub-Contractors)

Employees and Sub-Contractor responsibilities are to:

- Can demonstrate awareness of Environmental impacts in relation to their roles and Company Policies;
- Participates in inductions, training and job specific training;
- Provides essential feedback on Project and Business Operations for continual improvement;
- Ability to carry out the work task assigned competently without taking unnecessary risk;
- Ability to communicate if they do not understand or are not capable of carrying out the task;
- Exercises reasonable care at all times in the work area towards themselves and others;
- Uses only the safety equipment provided;
- Works in accordance with Company procedures;
- Avoids violations which could result in injury to themselves or others;
- Complies with management requests and instructions on Environmental matters;
- Reports and does not operate defective equipment;
- Does not intentionally damage or misuse equipment;
- Report any accidents, incidents, dangerous occurrences or near misses as soon as possible to the Supervisor/Project/Site Manager.

McLH Group SHEQ Director

Group SHEQ Director's responsibilities are to:

- Manages documentation related to Environmental aspects of the company Integrated Management System and responsible for approving changes for document control;
- Promotes environmental, sustainability and energy efficiency initiatives and strategy;
- Reviews audit findings and reports root cause analysis, corrective and preventive actions to Project Management and the Board for continuous improvement development;
- Monitors and reports on non-conformances for lessons learnt analysis;
- Monitors the performance of Sub-Contractors and reports to the Senior Management Team as appropriate;
- Reports on Project and Business Energy and Site Waste Management Data for continuous improvement development;
- Reviews the functionality and relevance of all Environmental and Energy Management documentation within the IMS to ensure it meets ISO 14001 and ISO 50001, Business, Legal and Client Requirements;
- Provides SHEQ advisory support to the Project;
- Contributes to the IMS audit schedule and ensures competent auditors are assigned to undertake the required project audits.

McLH Group Environmental Manager

Group Environmental Manager's responsibilities are to:

- Manages and monitors the company Integrated Management System;
- Promotes best practice and reports significant risks to the business through IMS Reviews on the project;
- Reviews the functionality and relevance of all documentation within the IMS to ensure it meets ISO 14001, ISO 50001, Business, Legal and Client Requirements;
- Contributes to the IMS audit schedule and ensures competent auditors are assigned to undertake the required project and business audits;
- Provides Environmental advisory support to the Project;
- Continually improves the management system in relation to project and business audit findings, best practice communication, lessons learnt and continual improvement analysis.

McLH Environmental Advisor

Environmental Advisor's responsibilities are to:

- Participates in Environmental Aspects and Impacts evaluation, providing information on activities as required;
- Develops Project procedures to control job related environmental impacts;
- Ensures all Employees, Contractors and Sub-Contractors are aware of and compliant with procedures relevant to own area of responsibility;
- Communicates Quality, Environmental and Energy Management Policies to Employees, Contractors and Sub-Contractors;
- Promotes good practice in the workplace.
- Acts as first point of contact for advice during environmental incidents and emergencies, coordinating with regulators as required.

McLH SHEQ Advisor

SHEQ Advisors' responsibilities are to:

- Performs internal project audits and inspections as per audit schedule and Client specifications;
- Hosts external project audits, providing guidance to the external auditors where required;
- Feeds back audit findings, good practice, significant risks and positive findings to Project Manager and Senior Management as appropriate;
- Provides advisory support to the Project as and when required;
- Liaises with the Project Manager to ensure appropriate Corrective and Preventive actions are identified and implemented;
- Investigate significant incidents (RIDDOR) and develops root cause analysis with improvement recommendations.
- Identifies common areas of non-conformance across the business and promotes good practice across the business.

Client

The Client's responsibilities are to:

- Provide all background information available to them that may impact or affect delivery of the works.
- Provide contact details of stakeholders and residents where applicable.
- Provide previous agreements with statutory bodies i.e., Local Authority
- Consult and liaise with McLH throughout the project.

1.4 Significant Risks and Opportunities

Significant Environmental Aspects to be Managed and Controlled

1.4.1 - Environmental Aspects and Impacts Risk Assessment

Aspect and Impact identification and assessment is the key to managing site specific environmental issues affectively. A site-specific Environmental Aspects and Impacts Register has been developed and is included in section 1.15 of this Plan. The considerations assessed will review **normal, abnormal, and emergency situations**.

The following criteria have been assessed and appropriate control measures established:

1. Pollution of Watercourses and Land.
2. Waste.
3. Emissions Nuisance.
4. Energy; and
5. Ecology, Biodiversity and Natural Heritage.

Control Measures for Environmental Impacts and Aspects are outlined in detail within this plan (Section 1.6 - Operational Controls).

1.4.2 – The following items are primary concern on this project

The primary areas of focus for this project are as follows:

- Waste Management
- Hazardous Waste Management
- Fuel usage and control of spillage
- Noise
- Dust
- Vibration
- Surface Water run-off
- Nesting Birds and Ecology

1.4.3 – Location & Habitat Sensitivity

The site is in a predominately industrial area with no areas of significant ecological value. The site is not subject to any statutory or non-statutory designations, with 2 designated sites within 2km comprising Local Nature Reserves (LNR) and 5 non statutory sites within 2km comprising Sites of Nature Conservation Importance (SNCI). See below;

<i>Designated site name</i>	<i>Distance from site (approx.)</i>	<i>Reasons for notification from Natural England</i>
Statutory		
Three Brooks LNR	1.02km east	The site comprises sections of ancient woodland, hazel coppice, and a man-made lake. the site supports notable species including reed buntings, skylarks, great crested newts, and slow worms.
Gorse Covert	1.47km northwest	A small woodland managed for wildlife enclosed by residential development.
Non-statutory		
Stoke Brook, tributary to the river Frome SNCI	1.10km east	The tributary provides open water and riparian vegetation of value to wildlife.
Filton airfield wood SNCI	1.4km southwest	A section of semi-natural broadleaved woodland which includes sections of marshy grassland.
Webbs wood and Bradley stoke lake SNCI	1.75km northeast	This site contains a section of semi-natural ancient woodland alongside standing open water, a stream, and areas of neutral grassland meadow.
Savages wood SNCI	1.75km northeast	A section of semi-natural ancient woodland with wet woodland sections.
Filton Golf Course	1.8km southwest	An area characterised by amenity grassland bordered by hedgerows. Small sections of scattered scrub, broadleaved woodland and a man-made lake are also present.

With the site being predominantly within an urban setting there is limited connectivity to the site for highly or less mobile protected and / or notable species. However, the railway side of the site does provide some connectivity, but it is not thought that this will have a big effect on migration onto site.

The following habitats have been recorded on site prior to demolition works taking place:

- Buildings
- Hardstanding
- Amenity grassland
- Semi-improved grassland
- Scattered scrub
- Tall ruderal vegetation
- Standing water (Tank)
- Scattered trees

On the existing development there is some vegetation which requires removal including 0.06ha of semi-improved grassland, 0.02ha of tall ruderal vegetation and 0.089ha of scattered shrub – precautionary principles shall be adopted where removing any vegetation, trees or shrubbery onsite including avoiding the bird nesting season 1st March to the 31st August. Where it is not possible to avoid this timeframe, a licensed ecologist must survey the areas to ensure that there is no potential for nesting birds or amphibians.

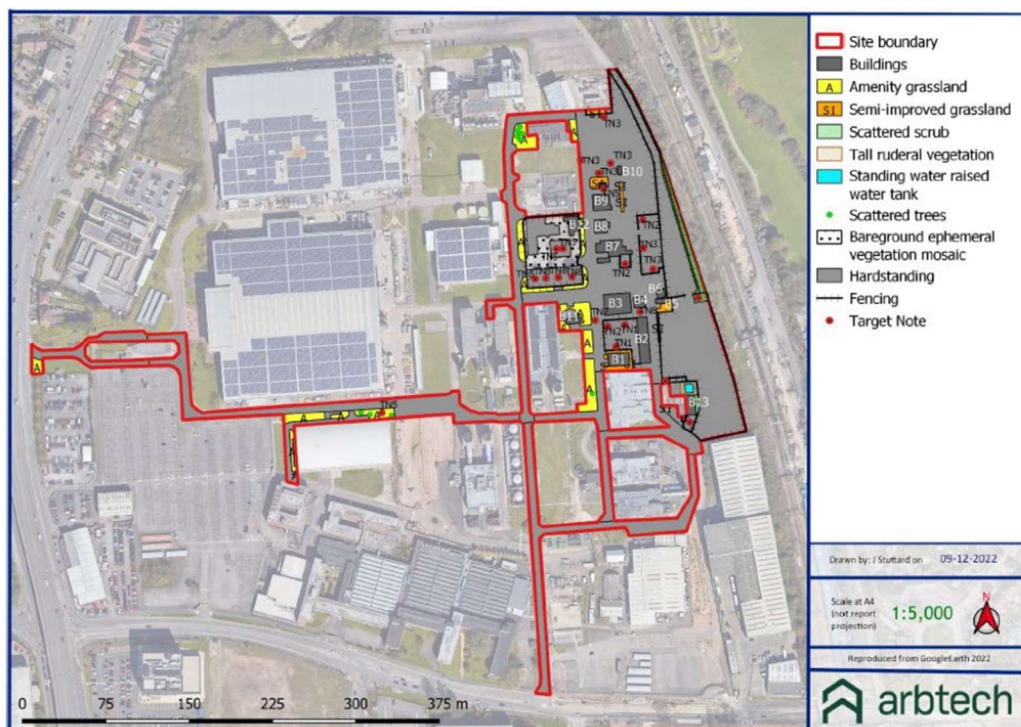
A Preliminary Ecological Appraisal (PEA) was carried out to assess the ecological value of the proposed site and to determine the potential impact of the proposed project.

A Bat Roost Survey was carried out for the demolition and construction phase, by Arbtech Consulting Limited, of the project to determine areas of high roost potential. This is assessed to be of negligible risk for the construction phase.

No notable protected species has been identified on this project.

No invasive species have been identified on this project.

Best practice pollution prevention measures will be implemented to minimise impacts to retained habitats that amphibians or wildlife could use.



1.4.4 – Historical Contamination

At this stage it is not known if there is any potential to encounter contaminated land at this stage, with further surveys to be undertaken to outline site specific requirements and risk. Once this has been provided this section of the CEMP will be updated accordingly.

Asbestos was found within multiple existing buildings and has been removed by previous contractor. Therefore, there should be no potential of encountering asbestos during construction works.

A watching brief shall be carried out during muck shift / earthworks onsite to ensure that any signs of contaminated ground is identified via old factory means. Any potential contaminated ground shall be laid on an impermeable membrane awaiting testing.

It is not expected that our operations will come across contaminated material, however, in the instance that we do, the project team will ensure that all waste is managed in line with EA guidelines. All relevant testing will be conducted, a licenced carrier and facility for the specified waste will be selected, ensuring full compliance of consignment notes.

1.4.5 – Watercourse management and protection

There are no watercourses within or running through the site boundary of note and so there will be no requirement for provisions to be put in place to prevent pollution to these.

With the site being an existing development however, it is envisioned that there will be a number of live gullies on and adjacent to the site which could be affected by site works. Therefore, all surface water drains shall be identified at an early stage and provisions put in place to ensure that drains are protected via gully guards which will ensure that silt and oil is trapped within the filter. These will be emptied and reused to ensure that their integrity is maintained throughout the project. This is especially important where there are main traffic routes. All gullies will be protected at all times from physical damage.

Surface water drains will also be protected through good practices being adopted onsite as described in section 1.6 “Operational Control” below.

The position of potential receptors and surface water and foul gullies shall be identified within section 1.5 below, so as to ensure that no chemicals are stored or refuelling activities take place within 10 meters of the open gullies which are the main receptors onsite for protection.


1.5 Site Eco Map

A Site Eco-Map is to be prepared with the locations of the aspects and controls identified in section 1.6 of this plan, plus any additional significant environmental aspects on a site drawing and displayed in at least A3 size on site. A copy of the Site Eco Map should also be inserted below and covered in site induction. The symbols to be used in the Site Eco-Map are available on Apollo (**IMS Doc Ref: 2102**).

















1.5.1 - Site Eco Map:

No Eco Map has been drafted at this stage with the project currently in the tender stage. However, this will be populated prior to commencing operations onsite and will cover all environmental aspects, risk, impacts and their appropriate mitigation and control. A copy of the Eco Map shall be placed in prominent locations onsite to ensure all staff and sub-contractors onsite are aware of environmental risks and where provisions are should an incident occur.

A copy of the standard symbols used can be seen below;

	IMS Doc Ref No:	PO/2/3/1/2-2102
	Process Objective:	To standardize the use of symbols across the Group when identifying Environmental impacts to ensure consistent use and easy recognition of where control measures are required.
	Process Owner:	Group Head of SHEQ

Eco Map - Standard Symbols

	Current work phase boundaries.
	Material storage area.
	Restricted Area: No storage and refuelling within 10m from the watercourse.
	Watercourse/Ditch/Detention Pond.
	Designated Zone: SSSI, ASSSI (Area of Special Scientific Interest) etc.
	Protection Zone around flora and/or fauna e.g. badger set etc.
	Location of Emergency Spill Kits.
	Fuel Bowser/Refuelling Area.
	Diesel Generators.
	Waste Skips.
	Euro Carts.
	Environmental Caution: Insert Text Specific symbol for special features may be used.
	Trees to be preserved. Please record if Tree Preservation Orders (TPO's) are in place.
	General direction of drainage.
	Existing Manholes: Surface Water - Foul Sewer.
	COSHH Store.

1.6 Operational Controls

1.6.1 - Fuelling Arrangements

Site fuelling will take place within a controlled area within the site compound, refer to **'Fuelling on Site' (IMS Doc Ref: 2251)**. The location of site refuelling is detailed on the Eco-Map.

The following controls will be applied to all refuelling points:

- The fuel point is to be sited away from drains and watercourses;
- The fuel tank shall be double banded and the integrity of the bund maintained at all times.
- The fuel tank will be protected from accidental damage, collision or vandalism;
- The distribution hose will be fitted with a shut off type filling nozzle;
- The filling nozzle will be fitted with a security lock to prevent unauthorised use; and
- Absorbent pads will be provided below the distribution hose and nozzle to capture any leaks or spills.

1.6.1.1 - Concrete Wash water

Chute only concrete washout will be authorised on site. Due to the size and phasing of the project this may have to move around as required but will be as far away from surface water drains as possible, bearing in mind that proximity to the pour is also beneficial in preventing spillage.

It is preferred that a concrete supplier who can supply lorries with integrated washout will be used on this job however the availability of such facilities will not be known until procurement advances in the natural manner.

If the above cannot be provided the next preference is for an integrated concrete washout system to be utilised. This will be either a Blue Rinse system, Kelly Tank or Silt buster RCW. All of which have unique functionalities to ensure site safety and good environmental management.

Concrete washout facilities will be provided. Locations will vary at each work unit and be marked on the Eco-Map once areas are determined. Refer to **'Concrete Washout Guidance' (IMS Doc Ref: 2069)**. Concrete washout facilities to be provided on site either by MCLH direct or as part of a sub-contractor's works package. Where required, if washout cube is not available fully lined skips will be provided at the site for collection of wastewaters generated from concrete washouts. Wash Water will therefore, be subsequently managed to prevent it's escape into the environment (high PH 11-13).

This contaminated water source will be held for a limited time. There will be no direct release to the environment. Concrete washouts are to be limited to designated areas on the site and all staff will be briefed on the pollution risks of working with concrete. Staff will be required to notify the Site Manager immediately and follow the Emergency Spill Procedure as outlined in section 1.7.3 if any concrete spillages are observed or if concrete washout is considered likely to cause pollution.

No concrete washout water will be permitted for disposal via site surface water management systems. Under no circumstance will a pit or other in-ground washout provision be implemented on site.

Solidified concrete will be broken out once the unit is 75% full, with this material either being used as backfill onsite or taken offsite as inert waste. All concrete wastewater to be PH tested and recorded prior to disposal.

1.6.1.2 - Vehicle Washing

It is unclear at this stage whether a wheel wash is required or not. Where a wheel wash is to be adopted onsite, this will be located in an area so as to prevent pollution via silt of surface water drainage system and shall be maintained as per manufacturers instructions.

1.6.1.3 - Wheel Cleaning Facilities

As above. Also, where transport movements create excessive dust or muck, road sweepers shall be used to clear all roads where appropriate. Road brush vehicles will maintain the public roads to an acceptable standard of cleanliness throughout the duration of the project. Wheel-washing systems may be provided prior to site exit but this is yet to be confirmed.

1.6.1.4 - Drainage of Site

The below diagram outlines the phases in which surface water and foul drainage will be installed onsite, to ensure that there is no water logging and that the surface water is appropriately managed to prevent pollution of the environment. Early installation of attenuation tank and drainage will be carried out as per design reviews.



Drainage Phasing

- Surface Water Drainage Phase 1
- Surface Water Drainage Phase 2
- Surface Water Drainage Phase 3
- Foul Drainage Phase 1
- Foul Drainage Phase 2
- Attenuation Tank

1.6.2 - Foul Drainage

MCLH site compounds shall maintain temporary sewage connections only. Permanent drainage systems will be installed in accordance with Employers Design which can be seen pictured in 1.6.1.4.

1.6.3 - Fuel/Lubricant Storage

A bespoke and secure storage area for fuels and lubricants will be established adjacent within the site compound. All fuels, lubricants and other potentially harmful liquids shall be stored within this area either in bunded tanks, on plant absorbent nappies and mats or similar product or with residue collection sumps with a minimum capacity of 110% of the contents of the vessel.

Spill kits and other emergency equipment shall be maintained on site at all times. Site personnel shall be trained in the use of the kits provided.

Bunding will be regularly inspected and emptied as required. Inspections and emptying shall be recorded in the site's diary.

1.6.4 - Waste Facilities/Management

A "Waste Management Compound" will be provided on site to enable waste to be efficiently segregated to optimise recycling potential. This will include segregation of; 1) canteen and office waste split into general and recyclables. 2) Non-hazardous waste segregated into; timber, metal, inert and plasterboard. 3) Hazardous waste segregated from non-hazardous.

A site-specific Site Waste Management Plan (SWMP) will be developed based on the principles of the Waste Hierarchy of Waste (see right) with particular emphasis on minimising the generation of waste.

A SWMP will be produced for the works and maintained throughout the project. Ongoing reviews will be carried out and the SWMP actions and strategies will be actively promoted through, inductions, site notice boards, and designer / subcontractor / supplier liaison.

In order to comply with all current legislation, it is essential for ALL contractors concerned in the removal and disposal of waste comply with the following:

- Hold a valid Waste Carriers Licence (Copy of this to be provided to MCLH prior to delivery of skips and retained on site);



- Remove waste materials to licensed facilities (Copy of appropriate licence / permit to be provided to MCLH prior to delivery of skips and retained on site);
- Complete Waste Transfer Notes for the waste disposed of (Copies must be retained by MCLH);
- Dispose of hazardous waste to licensed facilities under the control of a “Hazardous Waste Consignment note” (Copies of Consignment Notes and licences to be obtained by MCLH and retained on site); and
- Ensure that waste under their control is prevented from blowing off vehicles while in transit, such as the use of covered skips and netting.

Everyone is encouraged to ELIMINATE, reduce, reuse and re-cycle waste where possible.

A policy based on the principles of the Waste Hierarchy (Prevent, Reduce, Reuse, Recover and Recycle) is actively promoted through targets for improvement for each project. Project Environmental Targets are set out later within this Plan.

Segregated skips (enclosed as appropriate) will be utilised, co-mingling options will be discussed with the Waste Management Contractor. Waste materials will be removed from site in full compliance with the Environmental Protection (Duty of Care) Regulations. A Duty of Care Poster will be displayed on site noting full details of Waste Transfer Note requirements.

The efficient use of waste receptacles will be considered on every project at project planning stage through the development of the project specific MCLH Waste Card.

MCLH will endeavour to have identified, prioritised and selected options to design out waste by Project teams committing time to project waste planning and working closely with the Client, Designers, Suppliers and sub-contractors. This will include measures such as:

SWMP prepared at project planning stage;

- Design review to assess minimising waste through value engineering (only applicable on certain projects);
- SWMP developed with the project team to further optimise measures to minimise reduce, reuse and recover and recycle waste; and
- Meaningful ongoing project waste reviews, recorded findings, development of ongoing initiatives.

MCLH will promote waste reduction and maximise reuse of materials on a site-specific basis (including demolition, and excavation materials) as appropriate by:

- Sharing information across the business;
- Waste reporting by subcontractors as a mandatory contract condition;
- Planning involving liaison with waste management companies to harness expertise on specific project needs, challenges and set out diversion from landfill efficiencies including, segregation and co-mingle arrangements;
- Management of demolition arisings and recovery;
- Design reviews to establish possibilities for prefabrication of building fabric components along with the utilisation of modular components (as appropriate);
- Take back arrangements (as appropriate); and
- Provision of central dedicated space for the segregated recycled waste streams (as appropriate).

MCLH, where appropriate, increase the recycled content of materials and contribute effectively towards meeting clients waste cost saving and waste reduction objectives by:

- Sourcing of recycled material content within materials through sustainable procurement methods, where appropriate;
- Targets agreed and reporting evidence written into sub contract packages;
- On site standard to segregate waste, utilising identified skips managed by a waste champion;
- Suppliers are encouraged to remove packaging from site as part of the delivery cycle; and
- Deployment of balers and compactors, where appropriate.

1.6.5 - General Housekeeping/Cleaning Regime/Removal of Debris

A high standard of housekeeping will be demanded on the site, in addition to segregated skips (covered if appropriate) being maintained in the compound. Portable skips and wheelie bins will be used gather ongoing waste around the site. Housekeeping will form part of the induction and the requirements for each contractor to tidy their own waste off cuts and arisings will form part of the individual subcontracts and form part of the daily briefing, ongoing inspection and toolbox talks. Clean up notices will be utilised and MCLH will ensure the site is maintained in a tidy condition at all times. Site rules, planning and monitoring procedures include:

- Avoid double handling as much as possible: less effort, less damage, less wastage;
- Supervise the delivery of materials to ensure correct location and method of storage;
- Return to storage any materials that have not been used;
- Use off-cuts where possible;
- Re-use formwork as often as practically possible;
- Designate an area for surplus concrete – it can be crushed and re-used; and
- Pick up litter.

And:

- **DON'T** store or leave unprotected any materials that can be damaged by weather e.g. cement bags;
- **DON'T** over order materials;
- **DON'T** put materials in a skip if they still have a use;
- **DON'T** use new lengths of pipe or cable for short pieces of work. Minimise the need for off-cuts; and
- **DON'T** store together any materials that can contaminate each other.

1.6.7 - Litter and Pests

The site will be maintained in a clean, litter free condition throughout the works with litter picking carried out around the perimeter on a regular basis. Measures will be put in place to control pests should they be noted during site inspections.

All members of site management staff will take an active approach in ensuring that the site is kept clean and tidy, with clean up notices issued to sub-contractors who's work falls below MCLH's standards. No waste shall be allowed to escape the site.

1.6.8 - Earthworks

Any surplus soil to be identified during the planning phase and incorporated into planning permission to ensure that:

- soil removal to be minimised
- reuse uncontaminated soils onsite

MCLH intend on processing and recycling suitable material and reusing as much as possible for permanent road earthworks and landscaping. Surplus subsoil material will be removed from site.

Any material offsite must be recorded on the '**Material Off-Site Register**' (IMS Doc Ref: 2500). This must be submitted to Head Office at: monthlyreturns@mclh.co.uk on a monthly basis. Any waste material which cannot be reused will be exposed of using licensed carriers and disposed of at licenced facilities – with Waste Facilities and Management Licences will be updated within section 3.6.18 of the CEMP once obtained.

Earthworks at the site will be managed in order to minimise erosion and run-off. Any soil stockpiles in place during the project will be suitably managed, both in terms of reducing associated dust and in terms of mitigating the risk of giving rise to polluted surface water. Locations of stockpiles will not be located near any drainage systems and for each section of works will be identified within the site-specific methodologies.

All necessary measures shall be taken to prevent dust blown around and off the site from the surface, excavations, stockpiles, treatment areas and otherwise that may create either a hazard or a nuisance. (Please see 1.6.16 for Dust Mitigation). All loads of waste taken offsite will also be suitably covered to prevent it's escape into the environment.

Although the likelihood of contamination is limited, if any contamination is found, these materials will be segregated from non-contaminated, stored on-top of a specific membrane to prevent leaching into the ground and also clear signage indicating that contamination is present. This will then be added to the ECO-Maps and kept up-to-date.

1.6.9 - Protection of Trees

There are no protected trees of note onsite that require protection from site operations.

1.6.9.1 - Landscaping

Landscaping – will be carried out in line with landscape drawings / plan for the development.

Where biodiversity enhancements are included in planning we shall look to incorporate the following into the development (where the Client outlines within design);

- Native Tree and shrub planting
- Creation of wildflower grassland
- Creation of a green roof
- Creation of a new pond

1.6.10 - Energy Management	
General:	PIR Lighting; Push Taps in Cabins; Plant Maintenance Sheets. Obtain specific plant consumption or estimate as practicable.
Sub-Contractors:	Sub-Contractor Performance RAG Reviews Process (IMS Doc Ref: 2495) (Belfast); Periodic Meetings and Briefings.
Communications & Training:	Pre-Acceptance Meeting; Sub-Contractors SHEQ document; Noticeboard Communications, Display Outputs/Consumption on Noticeboard, Toolbox Talks; Training Events.
Procurement:	No directly purchased equipment; Sub-Contractors requested to consider energy performance of any purchased equipment; Spot Check commodities; Monitor plant/equipment efficiency.
Design:	Sustainability forms part of Client Design Standards and Building Regulation requirements; SBEM in place; EPC certificate.
Transport	Site Visitor and Attendance Log which includes mileage data.

1.6.10.1 - Energy Management Suppliers and Additional Information:	
Cabins/Welfare:	TBC
Generators Capacity:	TBC
Energy Supplier - Electricity:	TBC
Energy Supplier - Fuel:	TBC
Energy Supplier - Water:	Bristol Water
Arrangements for Supply by:	TBC
Negotiated Tariff (if applicable):	N/A
Legal and Other Requirements:	N/A
Transport:	N/A

1.6.11 - Transport

The site is located within the boundaries of Bristol and therefore, is well connected for deliveries and staff's transport to and from site.

McLH will design and implement the construction works in such a way to minimise unnecessary transport. Where road transport is required, we will look to deliver in bulk to reduce the number of vehicles required albeit care will be taken so as not to over order materials which may end up as waste. For further details please refer to the Sustainable Travel Plan in section 1.13.

During the Site induction and at tender stage it will be stressed that the local roads are for residents, workers will be encouraged to share transport, use public transport such as the Patchway train station, nearby bus routes and / or car sharing.

To ensure that all staff are aware of the Sustainable Travel Plan and most efficient modes of transport.

1.6.11.1 – Deliveries to site

There will be a gatehouse located within the Rolls Royce site boundary positioned off of the access from Gipsy Patch Lane and adjacent to the existing Rols Royce Gatehouse to control the direct construction traffic to site.

Directional signage will be installed along the main vehicular routes to assist guidance of vehicular traffic, in particular HGVs existing the site which will be marshalled by the gatehouse operatives.

Additional line markings will be installed to ensure HGV's give way prior to the corner junction out of the site and will allow our gatehouse operative to control traffic effectively at this junction.

1.6.11.2 – Pedestrians and Cyclist

MCLH will look to provide safe route and protection to both Pedestrians and Cyclist.

- All gates and entrances to be kept shut apart for deliveries.
- Delivery times to be monitored to reduce traffic during school runs etc.
- No traffic movements to take place without being under the control of the Traffic Marshall.
- Safety barriers to be used to form walkways where pavements have been narrowed.
- Safety lights to be used on exterior of site hoardings.

1.6.11.3 – Temporary Traffic Restrictions

MCLH will coordinate works to minimise disruption to local roads.

1.6.12 - Lighting

Lighting levels will be managed by MCLH Site Supervisory Team. Light will be kept to a minimum but sufficient from a health & safety point of view. Lights will only be focused on the works areas and kept away from residential areas and protected species. Following the Ecological Walk over survey all areas with ecological constraints will be highlighted and briefed to the site team so they pay specific attention to these areas to minimise the impact on the protected species. A TBT will be carried out highlighting the above.

The general working hours for the project are during daylight hours therefore there will be very little requirement for temporary lighting. If temporary lighting is required for specific work activities then the lighting will be positioned to project the light inwards to the face the work zones, thus avoiding light spillage/disruption to the surrounding neighborhood. All lighting shall be minimized and turned off when not in use and at the end of each shift.

Any complaints from neighboring communities will subsequently be actioned with ways on minimizing or removing the light pollution implemented.

MCLH shall ensure that all action is taken in line with ILE's Guidance Notes for the Reduction of Obtrusive Light (GN01:2011) and lighting is designed so as to ensure obtrusive light is minimized.

3.6.13 - Noise Best Practice

MCLH shall work within the Governments noise policy which has a long-term vision supported by three aims;

- 'avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvements of health and quality of life.'

The following noise mitigation practices will be adopted during the construction phase in line with BS 5228-1 'Code of practice for noise and vibration control on construction and open sites. Noise.

These include:

- All operations on site will be carried out during the approved working hours only (as set by South Gloucestershire Council and Planning Permission) and operations will occur as far away from potential receptors as practicable.
- Construction outside daytime working hours shall be limited as far as possible.
- All local residents will be contacted either in person by Site Management or via letter drops. Contact details of site management is displayed on the letter drops and site hoarding as well as details of The Considerate Constructor scheme to allow for any queries or complaints to be made.
- The Local Authority, appropriate neighbours and other interested parties will be advised of any noisy activities which will be carried out in a controlled and professional manner so as to minimise disruption to the local environs.
- Sealed acoustic covers will be utilised along the site boundary / hoarding, as necessary during noisy activities and wherever practicable noise will be directed away or carried out away from sensitive locations.
- Fixed and semi-fixed ancillary plant such as generators, compressors etc. which can be located away from receptors to be positioned so as to cause minimum noise disturbance. If necessary, acoustic barriers or enclosures to be provided for specific items of fixed plant such as generators.
- Where possible, plant and equipment to be used on this project will be fitted with approved silencing equipment where required and be operated within the manufacturer's guidelines by competent operators.
- Maintenance will be carried out to the manufacturer's guidelines to ensure that plant and equipment remains in this state with particular attention paid to the integrity of silencers and acoustic enclosures. All waste oils, fuels, filters etc. arising from the maintenance/servicing of plant will be collected for appropriate off-site recycling and/or disposal.
- Plant will be kept in good working order so that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.
- A non-idling policy will be enforced when vehicles are static or not in use.

- Drop heights of materials from lorries and other plant will be kept to a minimum.
- Equipment which breaks concrete, brickwork or masonry by bending or bursting or “nibbling” shall be used in preference to percussive tools. We shall avoid the use of impact tools where the Site is close to occupied premises.
- Rotary drills and bursters activated by hydraulic, chemical or electrical power shall be used for excavating hard or extrusive material.
- Equipment powered by mains electricity shall be preferred to equipment powered by internal combustion engine.
- The use of generators shall be phased out at an early stage of the project with a connection to the grid preferred.
- No part of the works nor any maintenance of plant shall be carried out in such a manner as to cause unnecessary noise except in the case of an emergency when the work is absolutely necessary for the saving of life or property or the safety of the works.
- Rest period shall be provided onsite where there is prolonged noise exposure to staff.
- All forms of radios and stereos are prohibited onsite.

3.6.13.1 - Noise Monitoring

McLH shall ensure monitoring of noise levels at the perimeter of the site during noisy activities onsite to demonstrate compliance with BS5228 (on a periodic basis and/or in the event of a complaint).

- Construction noise shall not exceed the following levels as defined following the baseline monitoring carried out in 2018 at the nearest residential receptors that may be impacted by the noise from the project;

Receptors	Corresponding Monitoring Location	Time Period	Noise Limit $L_{A,Tr}$ dB	
			ABC Category	Noise Threshold (23:00-07:00)
R1 – 21 Redfield Road R1A – 20 Ravenscourt Road	M1 – 17 Redfield Road	Daytime	A	65
		Evening and weekends	A	55
		Night-time	A	45
R2 – 18 Rossall Avenue R2A – 18 Lawford Avenue R2B – 10 Lawford Avenue R2C – 6 Gifford Crescent R2D – Bush Avenue	M2 – 7 Rossall Avenue	Daytime	A	65
		Evening and weekends	A	55
		Night-time	B	50
R3 – 92 Gloucester Road R3A – 120 Gloucester Road R4 – 64 to 70 Gloucester Road *	M3 - 102 Gloucester Road	Daytime	B	70
		Evening and weekends	B	60
		Night-time	C	55

* In order to consider potential worst-case effects, the receptor R4 is extended to include the residential properties 64 to 70 Gloucester Road.

A full quantitative assessment of construction impacts is not possible at this stage as details of the proposed construction methods and plant are not currently available until the tender stage progresses further.



3.6.14 - Vibration Monitoring

The closest distance between the Proposed Facility and the nearest sensitive receptor is 105m. At this distance construction vibration is very unlikely to be perceptible by the residents.

Vibration mitigation practices will be adopted during the construction works in line with BS 5228-2 'Code of practice provides a 'best practice' guide for noise and vibration control on construction and open sites. Vibration. These include:

- All piling activities will be notified in advance. Hours during which piling is permitted are:
 - Monday to Friday, 8.00 am – 6.00 pm (Please note this will be subject to change depending on planning permission).
 - No piling works shall be undertaken on Saturdays, Sundays or Bank Holidays.
- Establish channels of communication between Contractor, Local Environmental Health Officer and Residents. We shall apply a pro-active approach to limiting the potential impact of the works by keeping the public, neighbouring properties and residents fully informed over scale and nature of the works.

3.6.15 - Prevention of Mud and Debris on the Public Highway

McLH and all associated sub-contractors shall comply with the site requirements through information provided at Induction at all times and implement the strategies approved for wheel cleaning and road sweeping, as required.

No mud or dust shall be permitted on internal roads (within the Rolls Royce facility) or on external roads. This will be proactively monitored and managed on a daily basis, with McLH management responsible for this. During groundworks the frequency of street sweeps shall be increased as required to maintain a clean and tidy site and surroundings.

3.6.16 - Dust Monitoring/Best Practice/Suppression

The Site Management team will monitor the site and will implement dust suppression measures as necessary. The creation of dust through site activities will be minimised wherever possible. Dust suppression will be used to minimise the generation of dust and other airborne particulates with the use of water misters, but care will be taken so as to not over-damp surfaces such that mud and slurries are produced. Site speed limits shall be adhered to at all times to aid the minimisation of nuisance on the wider site area.

Where Construction works require the use of any powdered additives, particular care will be given to control their usage. Any such operations will only be carried out during appropriate climatic conditions and will be suspended if wind speed/direction was unsuitable for the works to proceed. Any processing plant will have dust suppression equipment fitted as standard. This will ensure that any airborne particulates are controlled during the processing of the material. Stockpiling will be monitored controlled dampened with the duration on site minimised.

A record of weather conditions will also be made, usually in site diary, including wind speed and direction, so as to validate potential offsite issues.

McLH operations on site are unlikely to lead to malodour being experienced out with the site boundary. However, the Site Management team will monitor the site, making note of any odours or operations with the potential to give rise to odours. McLH will adopt best practice in terms of reducing the potential for odours to be created. Material that has visual or olfactory signs of contamination will be adequately contained and managed.

It is acknowledged that there will be instances throughout the project where there may be dust generated on site during works. These include but are not limited to:

- Cutting, sanding and grinding of some materials
- Excavation
- Bulk earthworks
- Vehicle travel
- Use of heavy plant and equipment

It is proposed that these occurrences shall be minimised so far, as reasonably practicable to ensure that dust pollution is kept a minimum. McLH aim to take all necessary precautions to ensure that dust and material created as a result of the construction process do not adversely affect the amenity of those living and working in the area.

The Site Management team will monitor the site and will implement the following dust suppression measures as necessary;

Communications

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site;
- Correct PPE to be worn by all operatives working in or around dusty environments as dictated by RAMS.

Dust & Air Quality Management

- Record all dust and air quality complaints, identify causes and take appropriate measures to reduce emissions in a timely manner, and record the measures taken;
- Make complaints log available to Local Authority when asked;
- Record any exceptional incidents that cause dust and/or air emissions, either on or off site, and the action taken to resolve the situation in the log book;
- Carry out regular site inspections to monitor dust, record inspection results, and make an inspection log available to the Local Authority when asked;
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities;
- Plan site layout so that machinery and dust causing activities are away from receptors, as far as is possible;
- Fully enclose specific operations where there is a high potential for dust production and the site is active for an extensive period;
- Avoid site run off of water or mud;
- Keep site fencing, barriers and scaffolding clean using wet methods;
- Remove materials that have a potential to produce dust from site as soon as possible, unless being reused on site;
- Where possible stockpiles to be positioned away from sensitive receptors and in areas not affected by wind.
- Ensure all vehicles switch off engines when stationary – no idling vehicles;
- Plant to be appropriately maintained and specified
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable;
- Impose a signpost a maximum speed limit of 15 mph on surfaced and 10 mph on unsurfaced haul roads and work areas;
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays, local extraction or shielding.
- Extraction devices on equipment where practicable

- Ensure an adequate water supply on the site for effective dust / particulate matter suppression / mitigation, using non-potable water where possible and appropriate;
- Use enclosed chutes and conveyors and covered skips (Loads to be covered when exiting site);
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods;
- Surfaces to be kept swept and damped down as required.
- No bonfires or burning of waste materials;
- Daily plant checks will be undertaken by operatives to ensure plant and equipment is well maintained and to identify defects / emission issues;
- Vehicles and plant will be regularly serviced, maintained and checked.

Construction

- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.

Track out

- Use water assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use;
- Avoid dry sweeping of large areas;
- Ensure vehicles entering and leaving site are covered to prevent escape of materials during transport;
- Record all inspections of haul routes and subsequent action in a site log book;
- Install hard surfaced haul routes, which are regularly dampened down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned;
- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever the site size and layout permits;
- Access gates to be located at least 10m from receptors where possible

3.6.17 – Managing and Investigating Complaints

If a light, dust, noise, vibration or any other complaint are made, a note will be made on the complaints register and the complaint forwarded onto the management team.

All complaints shall be dealt with promptly and any appropriate remedial action shall be taken. A dust, noise or vibration complaint shall be dealt with in accordance to 'Methods for rating and assessing industrial and commercial sound' (BS 4142) and will result in:

- Complaint added to complaint register
- Project Manager notified
- Source of dust/noise/vibration identified
- Remedial action taken (where possible)
- Complainant notified of remedial action
- RAMS reviewed to prevent reoccurrence
- Reviewed RAMS sent to Project Manager for approval in advance of work recommencing

A copy of the complaint register shall be available upon request.

3.6.18 - Regulatory Approvals and Consents

McLH confirm that they shall seek to undertake the works in full Regulatory compliance at all times. Please complete table below with details of Licenses / Consents applicable to the site. Please add more rows if required.

License/Consent Name:	Licence/Consent Number:	Licence Holder Name:	Issuing Body:	Expiry Date:
Waste Carriers Licence	WCR/R/1132713	McLaughlin & Harvey	SEPA	26/10/2024
This table shall be further developed throughout the construction phase and will include; waste carrier's licenses, waste management licenses, ecological licences, discharge licenses etc. This table will be kept up-to-date throughout construction.				

A close working relationship will be promoted at all times with the appropriate Regulatory Authorities (Environment Agency) and the Local Authority. Site visits by Regulators will be encouraged and facilitated. Any concerns raised by the Regulators will immediately be investigated and addressed and any corrective actions will be implemented without delay.

1.7 Environmental Objectives and Targets

Our aim on this project is:

- To have zero environmental incidents;
- To have no non-positive Regulator Interventions;
- To show **Leadership** through **Engagement** with our Supply Chain by increasing their environmental awareness and enhancing their sustainability credentials;
- To meet the Clients environmental and sustainability expectations and objectives;
- To work with the regulators to the benefit of the environment locally and holistically and sharing best practice initiatives; and
- To achieve or exceed the McLaughlin and Harvey Environmental Objectives, Environmental Performance Indicators and the Project specific Targets as listed below.

To achieve these aims McLaughlin and Harvey have set a range of Company and Project Specific Resource Management Targets. These are set out in the tables below. Data is recorded and regularly analysed to determine progress towards achievement of these targets.

Additional project specific targets can also be set to meet project requirements, such as BREEAM and CEEQUAL, or to meet additional client requirements. These are detailed in the table below.

Project specific objectives and targets are located within the ‘**Project Objective Register & Management Plan**’ within **Section 1.5** and must be regularly updated to be specific and relevant to the project throughout its lifecycle in conjunction with business and Client strategies.

1.7.1 - Company Targets

Input:	Target:
Waste Disposed	95% diversion from landfill
Waste Generated	0.315% of project value
Energy	0.265% of project value
Carbon - Direct GHG Emissions	12.2054 tonnes CO ₂ e/£1 million
Water	14.7m ³ /£100k of project value
Timber	100% from sustainably managed sources
Corporate Social Responsibility (CSR)	Score of 8 to be achieved in CCS Environmental Section

1.7.1.2 - Project Specific Targets to be included within the Project Objective Register & Management Plan

Input:	Target:
Waste Disposed	95% diversion from landfill
Waste Generated	Project specific targets shall be set ahead of construction for each of these categories and will be tracked throughout construction so as to carry out initiatives to meet targets.
Electricity	
Fuel Use	
Carbon – Direct GHG Emissions	
Water	
Timber	100% from sustainably managed sources
Corporate Social Responsibility (CSR)	Score of =40 to be achieved in CCS Environmental Section

1.7.2 - BRE SMART Waste Tool

We use SMART Waste the online tool designed by BRE to help the construction industry with Resource Management Planning. It is an online SWMP and resource use analysis tool that enables the company to store and report each project’s resource efficiency via the company SMART Waste account; this includes electricity, fuel, water and material usage.

In order to fulfil the requirements of this system, various data must be recorded and monitored by a number of employees, from both McLaughlin and Harvey and sub-contractors. Waste records will be uploaded onto the SMART Waste online tool as the project progresses, input will be audited by the SHEQ department.

1.7.3 - Required Inputs

Waste Management Contractors: required to provide monthly waste reports, detailing the recycling rates and waste stream breakdowns. This will allow compilation of waste materials produced on a monthly basis and further provide an actual waste total for the project which can then be compared to the initial forecasted statistics. Full details of requirements for waste reporting from waste contractors are available in '**Waste Contractor Requirements**' (IMS Doc Ref: 2298).

Site Data: Readings will be recorded from a number of different sources including electricity, gas and fuel consumption. Electricity will be monitored by a regular meter reading from an onsite source. Fuel usage is then recorded through the monitoring of invoices received and sub-contractor reports. Water usage onsite should also be measured by taking weekly/monthly readings from the water meter, depending on each particular project.

Carbon Equivalents: All data collected can then be collated to derive the associated CO₂ emissions and compared to company targets, which are entered during the SWMP setup. This comparison will highlight area of poor performance and thus encourage improvements to be made in the respective areas and helping to deliver continuous improvement.

1.8 Environmental Planning

This project has the potential to give rise to environmental impacts should it not be planned, carried out and managed in a responsible and diligent way. Fundamental to Construction planning for any scheme is the Environmental Assessment, with the requirements of this transferred into project programmes. These requirements and the process required to be adopted, will be identified through detailed project specific '**Environmental Aspects and Impacts Register**' (section 3.15). All site staff are instructed on the requirements of the plan through a detailed project specific induction which is supplemented by activity specific method statements with consideration to all environmental requirements.

1.8.1 - Competence

MCLH aims to ensure that all members of staff are in possession of the knowledge, skills and experience necessary to perform their jobs to the highest standards. Personnel for this project have been selected based on their qualifications, experience and skills. Training requirements are reviewed in line with contract demands and changes to legislation.

1.8.2 - Sub-Contractors

In the absence of their own Environmental Management System formally approved to BS EN ISO14001 or EMAS, the sub-contractor shall comply with MCLH's Integrated Management System. The Sub-Contractor shall comply with all environmental legislation and McLaughlin and Harvey will monitor compliance.

The Sub-Contractor shall carry out activities on site in accordance with the requirements of McLaughlin and Harvey's SHEQ Project Plan. All operations require to have Risk Assessments and Method Statements that must be approved by the Site Manager before the work is carried out and cover appropriate Environmental matters for the activity.

MCLH will also endeavour to exert control on all outsourced processes within our capabilities to ensure aspects and impacts, risks and opportunities and our compliance obligations are met.

1.9 Environmental Communications

Concerns about environmental issues specific to the project, including the site Environmental Aspects and Impacts Register and Eco-Map, are communicated to personnel and sub-contractors through daily briefings, site meetings, site induction, toolbox talks and method statement briefings.

Responsibility for contacts with statutory bodies, local residents and other concerned people, is agreed with the client at the outset of the project.

1.9.1 - Local Liaison

Notification of neighbours in close proximity to the site, for properties potentially affected by the works, will be undertaken by way of newsletter / letter drops, such as with the "Considerate Constructors Scheme - Construction Work in your Area" flyer. These can be ordered through the Communications Co-ordinator.

As far as is practicable, we will adopt an "open door" policy to those local residents or businesses wanting information on our activities. Our aim is to promote good neighbourly relations without sacrificing safety or losing focus on the tight programme of the works.

As appropriate a neighbourhood community notice board will be maintained in conjunction with the site, as will a project specific website, where applicable.

1.9.2 - Environmental Toolbox Talks

The requirement is that each project must carry out a minimum of one Environmental / Energy Tool Box talk each month. The toolbox talks are required to be project specific with due consideration to seasonal requirements, examples of Environmental / Energy Tool Box Talks that are to be carried out each month are set out in the table below.

1.9.3 - Environmental Toolbox Talk Register

Calendar Month:	Topic:
January	Energy Efficiency (IMS Doc Ref: 1093)
February	Waste and Resource Management (IMS Doc Ref: 1102)
March	Birds (IMS Doc Ref: 1100)
April	Tree and Hedgerow Protection (IMS Doc Ref: 1091)
May	Material Handling & Housekeeping (IMS Doc Ref: 1090)
June	Nuisance Noise (IMS Doc Ref: 2031)
July	Dust and Air Quality (IMS Doc Ref: 1094)
August	Washing Down Plant and Machinery (IMS Doc Ref No: 1096)
September	Storage & Use of Petrol, Diesels and Oils (IMS Doc Ref: 1095)
October	Water Pollution – Silt (IMS Doc Ref: 1097)
November	Spill Control (IMS Doc Ref: 1101)
December	Be a Good Neighbour (IMS Doc Ref: 1964)

1.10 Documented Information

1.10.1 - Documentation on Site

A copy of this plan is to be on site in hard copy and is also made available in electronic format. This is a dynamic living document and will be amended as necessary. The master copy is retained on Workspace. A copy of the company procedures appropriate to the site, together with the management systems available on Apollo. These are controlled documents.

A set of Guidance for Pollution Prevention (GPPs) and Pollution Prevention Guidelines (PPGs) <https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/> published by the UK environmental regulators are available for guidance on best practice, as listed below, however we recommend that the site team also liaise with the Environmental Advisors within the MCLH SHEQ Team.

- GPP01 Understanding you environmental responsibilities- good environmental practices
- GPP02 Above ground oil storage tanks;
- GPP03: The use and design of oil separators in surface water drainage systems;
- GPP04 Treatment and disposal of wastewater where there is no connection to public foul sewer;
- GPP05 Works and maintenance in or near water
- PPG06 Working at construction and demolition sites;
- PPG07 Pollution Prevention Guidelines Refuelling Facilities;
- GPP08 Storage and disposal of used oils;
- GPP21 Pollution incident response planning;
- GPP13; Vehicle washing and cleaning;
- PPG18 Managing fire water and major spillages;
- GPP22 Dealing with spillages;
- GPP26 Storage and Handling of Drums and Intermediate Bulk containers.

1.10.2 - Environmental Records

The following environmental records will be retained as part of the contract records:

- Consents and licences;
- Waste Transfer Notes;
- Hazardous Waste Consignment Notes;
- Project environmental audits;
- Electricity consumption records;
- Fuel consumption records;
- Water Consumption records;
- Results from environmental monitoring; and
- Complaints & feedback register including action taken in response.

In addition, the following records will be retained as part of the company's wider records system:

- Register of Legal Requirements (managed by environmental specialists in the MCLH SHEQ Team);
- Environmental training records;
- Management reviews;
- Site Inspections;
- Site inductions;
- Client specific data; and

1.10.2.1 - Monitoring

We will carry out specific and supported process monitoring, and other environmental monitoring as agreed (e.g. noise, ecology monitoring, KPI's etc.):

- Legislative requirements are being met;
- Client requirements are met; and
- MCLH policy requirements and the requirements of the Environmental Plan are being met.

Records of site monitoring will be retained on site and on Viewpoint. These results will be considered during site audits.

1.10.3 - Environmental Auditing

As part of the MCLH ongoing internal audit schedule we intend to carry out the following site audits:

- Monthly scored audits, carried out on every site, with the key environmental issues being reviewed and reported on to the management team and board. As required, action plans and support is provided from in-house and external professionals;
- Monthly advisory audits carried out on every site, again with the key environmental issues being reviewed and reported on to the management team and board;
- Environmental Inspections;
- Any other project specific monitoring requirements to be inserted here, e.g. Ongoing Environmental monitoring / watching brief will be undertaken by MCLH (site team and support) with records maintained of daily and formal inspections;
- Ecological Inspections will be carried out as required on site.

1.11 Site Environmental Monitoring Plan

* Complete plan with checks required; ensure to include and contract specified requirements*

Environmental Elements for Check & Inspection:	Frequency of Inspections:	By Whom:	Report To:	Remarks:
General Environmental site inspection (IMS Doc Ref: 1087)	Weekly	Project/Site Manager		Refer to Site Inspection Report
Spill Response Drill (IMS Doc Ref: 2588)	6 Monthly	Project/Site Manager	Site Files	Record attendance on Toolbox Talk Record (IMS Doc Ref: 1162)
Environmental Weekly Monitoring Plan (site specific)	Weekly	Site Team	Site Files	TBC
Noise Monitoring	Daily	Site Team	Site Files	To record noisy activities to ensure that levels are kept within safe threshold and levels that do not cause nuisance to the surrounding community.
Monthly Returns	Monthly	Site Team	SHEQ	To record water, fuel, electricity and waste consumption and or generation.
Concrete Washout Daily Monitoring Check Sheet	Daily	Site Team	Site Files	To ensure the continued proactive management of concrete wash water onsite to ensure that no adverse effect is caused to the environment.
PH Daily check Sheet – Concrete Washout	As and when required	Site Team / Groundworkers.	Site Files	To ensure that concrete wash water is sufficiently treated to a safe level 6-9.

1.12 Emergency Preparedness and Response

1.12.1 - For Abnormal Environmental Conditions and Reasonably Foreseeable Emergency Situations

The Project / Site Manager must be informed of incidents relating to the Environment at any location by the quickest possible means, and will report all incidents within 24 hours to the SHEQ Department.

The Project / Site Manager will identify an emergency situation and activate the response, co-ordinate all activity in accordance with company procedures; delegate and assign specific responsibilities to other employees; and liaise with emergency services and other external agencies (if appropriate) and record the incident.

Employees and Sub-Contractors will immediately notify the Project / Site Manager of any situations that requires a response and will follow the directions of the Project / Site Manager and emergency services (if appropriate) throughout the duration of the emergency.

1.12.2. - Chemical/Fuel/Oil Spill

The Project Manager will ensure the discharge is contained and will notify SEPA/EA/NIEA or the local Water Company if required. Action will be taken to safeguard employees and prevent further leakage. In the unlikely event that the spill cannot be dealt safely with by personnel, an external specialist sub-contractor will be contacted. All traces of liquid will be collected using absorbent materials and/or floor cleaner/vacuum. All such materials will be collected into suitable containers for disposal. Further advice will be available from the SHEQ department. If there is a spill, the event will be recorded via an Accident/Incident Notification and details will be provided to the SHEQ department immediately. The following details will be recorded:

- Cause of spillage;
- Approximate volume of escaped liquid;
- Whether any entered the drainage system; and
- Summary of Incident on Incident Register.

Upon discovery of a spill/overflow, Employees and Sub-Contractors will notify the Project Manager immediately. The liquid will be identified and associated COSHH data sheets will be reviewed regarding potential hazards. The cause of the leakage will be established and if possible, action will be taken to prevent further leakage. Where required, personal protective equipment will be in use and personnel in the area will be notified. Absorbent material will be used with the spill kit to contain the escaped liquid. If the incident occurs outside, preventive action will be taken to avoid it reaching the surface/foul drainage system. Any exterior drains which may become affected by the spilled material will be sealed, using appropriate measures, such as gully guards. If the pollutant has already contaminated the drain, valves will be closed, if possible, by a member of the site team and/or the EA/SEPA/NIEA or the relevant Water Company will be notified. In the event that pollutants enter surface water, temporary booms/barriers may be used if available on site, to contain the pollutant and pump out into a suitable receptacle.

Spill Response Drills to be conducted on site on a 6 monthly basis or more frequently if required by site specific conditions – refer to 3.11 for drill frequency and details.

1.12.3 - Flood Risk

Site layout and design in relation to flood risk and all arrangements suitable to minimise material loss will be taken into account at design stage, where this is under the control of MCLH, and will be continually assessed throughout project delivery. Materials will be stockpiled to protect the facilities from intrusion of water at strategic locations. Other foreseeable contingencies and efforts will be coordinated with Public Authorities and Environmental Agencies.

1.12.4 - Dust

Measures in relation to dust suppression measures are set out in Section 3.6 – Operational Control. Toolbox Talks: Dust & Air Quality and Control of Dust & Fumes offers the practical prevention measures that should be undertaken in order to limit the effects of excessive dust.

1.12.5 - Noise/Vibration

Measures in relation to noise and vibration mitigation measures are set out in Section 3.6 – Operational Control. Toolbox Talk: Nuisance Noise details a number of steps/solutions that can be utilised in order to prevent nuisance becoming problematic which may potentially lead to complaints from neighbours, poor public relations and/or negative publicity.

Where the possibility of an environmental incident is foreseen, the response is set out in the Emergency Response Plan.

1.12.6 Emergency Response

Environmental Emergency Response Procedures

In the event of a spill of the following materials the response procedures will be:

Hazardous Material:	Response:	Further Information:
Fuels and Oils	<p>For small leaks or minor spills, isolate and shut off the supply take up the spillage with inert absorbent material, cover drains and manhole covers where necessary and arrange for controlled disposal by licensed waste disposal contractor.</p> <p>For large spills involving contamination of the ground isolate and cordon off the area the take up the spillage with inert absorbent material, cover drains and manhole covers and block off routes to drainage or watercourses. Report spillage to head office immediately.</p>	Enforce NO SMOKING rules in the vicinity of spillage.
Contaminated Water	<p>For small amounts arrange pumping out or take up with inert absorbent material and place in suitable closable container for controlled disposal by licensed waste disposal contractor.</p> <p>For major incidents of contamination of or to water inform the Regulator for assistance.</p>	Inform Regulator immediately. See Emergency Spill Response Procedure (ESRP) below.
Hazardous Liquids	Shut off the supply and isolate the area, take up with inert absorbent material and place in suitable closable container for disposal by specialist contractor or to landfill or by controlled incineration.	Refer to site specific Risk Assessment for use of each hazardous liquid.
Hazardous Material	Once identified arrange for removal and controlled disposal by specialist contractor to landfill or incineration.	Refer to site specific Risk Assessment for use of each hazardous material.
Contaminated Waste or Material	Arrange for survey report to identify class and type of contamination container or pumping out for controlled disposal by licensed waste disposal contractor. For contaminated excavated material arrange for controlled disposal by specialist contractor to landfill or incineration.	Proceed in accordance with contaminated material report.

1.12.7 Contaminated Water or Material

Introduction

This procedure applies to the discovery of small amounts of contaminated water or material during contract works, inspections or excavations.

- Immediately isolate the contaminated area with barriers / signage etc. to ensure that contamination is not spread to a wider area.
- The discovery of the contaminated material should then be reported to the Contracts Manager/Operations Manager, SHEQ Department and the Client for action.
- Any equipment or instruments that are suspected of being contaminated are to be cleaned in a controlled manner with suspected contaminated materials removed and taken up with inert absorbent material and place in suitable closable container for disposal to landfill or by controlled incineration.
- All small items that are found to be contaminated or are suspected as being contaminated are to be enclosed in sealed plastic bags until de-contamination is undertaken or disposal instructions confirmed.

The Site Management Team are responsible for the monitoring day-to-day compliance with this procedure.

TESTING

The following procedure should be used in order to determine if material is contaminated - A sample should be taken and be examined for: -

- Unusual discoloration;
- Visible hydrocarbon contamination;
- Other organic / inorganic contaminants; and
- Unusual distinctive odour or smell.

If any of the above areas are observed, then the material should be considered as contaminated. Suspected contaminated material must be reported to the site management team for action, inspection and testing. Disposal of contaminated material will be at licensed disposal sites and disposal documentation maintained.

1.12.8 Emergency Spill Response Procedure

Procedures to be followed in the event of a spillage/incident:

The following procedures are intended as a guide to dealing with incidents. Staff shall act in accordance with these procedures whilst ensuring their own health & safety and those of others.

- **If possible, identify the source of the spillage and cut off source, e.g. by closing valve, righting container etc.;**
- **Identify the extent of the spillage. If spillage is near a watercourse (drainage ditch, burn, river) divert spillage away from the watercourses by digging interception trenches or by using absorbent material (spill kit);**
- **Notify all parties in an appropriate order as stated below. Notification should be made by one person only whilst the remainder of staff present attend to the spill itself;**
- **If a spill has reached a watercourse the following measures should be applied:**
 1. **Place flexible absorbent booms downstream of the contamination within a stretch of water with a low flow velocity;**
 2. **Place absorbent cushions in the water immediately upstream of these booms; and**
 3. **Repeat this process further downstream and remove and replace saturated sediments / absorbent material as required.**
- **Excavate all contaminated ground as recommended by specialist following investigation and testing. All contaminated materials should be disposed of appropriately by a licensed waste contractor, in compliance with current waste legislation.**
- **Only store the waste within a designated COSHH storage area; and**
- **Fully complete a McLH 'Accident/Incident Notification' (IMS Doc Ref: 2062) and return to the SHEQ Department as soon as possible for all spills resulting in a pollution event. If spill does not result in pollution event, complete an SOR and copy to SHEQ Department.**

Key Information to be provided in a clear and concise manner (as soon as possible, but within 30 minutes of incident), to the SHEQ Department:

- What substance was spilled;
- Approximate volume and time of spillage;
- Accurate location of spill (GPS or grid reference if possible, or bridge ID/number referenced on map etc.);
- All measures taken;
- Help required i.e. manpower, machinery, expert advice, disposal, etc.; and
- Whether the spill has reached a watercourse or drainage.

1.12.8.1 - Key Contact Information

Contact McLH, Emergency Spill Response Contractor and Regulator using the contact details provided below:

Project Manager Name:	TBC	Contact Number:	TBC
Contract Manager Name:	TBC	Contact Number:	TBC
Project Ecological Clerk of Works Name (if applicable):	TBC	Contact Number:	TBC
McLH Environmental Advisor:	Elysia Forbes		
Emergency Spill Response Contractor:	Company Name:	Adler & Allan	
	Contact Number:	0800 592827	

A **Project Environmental Advisor** will contact the Environment Agency immediately using the UK Emergency Hotline number **0800 80 70 60** or **1890 33 55 99 (ROI)**.

1.13 Sustainable Travel Plan

1.13.1 - Introduction:

This section outlines the McLH Sustainable Travel Plan; the overall objective of the plan is to encourage and monitor the use of more environmentally-friendly transport options. The plan contains four specific objectives:

- To enhance the organisation's corporate social responsibility and improve environmental performance;
- To promote the benefits of sustainable mode of transport;
- To reduce unnecessary travel; and
- To ensure that all staff are aware of the Sustainable Travel Plan and most efficient modes of transport.

This travel plan covers staff and visitors travelling to the site for commuting journeys and business travel and aims to increase site accessibility, reduce travel costs, improve health and wellbeing and minimise carbon associated with transport.

1.13.2 - Objectives:

The objectives of the Site Travel Plan are as follows:

1.13.2.1 - To enhance the organisation's corporate social responsibility and improve environmental performance:

Demonstrating McLH's commitment to sustainable transport.

1.13.2.2 - To encourage the use of more sustainable modes of transport:

Demonstrating McLH's commitment to sustainable transport.

1.13.3 - Implementation:

In order to implement the plan, the following will be established on each site:

1.13.3.1 - Travel Plan Co-ordinator:

The role of the Co-ordinator will be as follows:

- To oversee the development and implementation of the Travel Plan;
- To obtain and maintain commitment and support from Site Supervisors and Site Personnel;
- To design and implement effective marketing and awareness raising campaigns to promote the Travel Plan;
- To act as a point of contact for all staff requiring information;
- To liaise with different levels of the Site Team.

1.13.4 - Monitoring:

1.13.4.1 - Specific Monitoring Strategies:


- To enhance the organisation's corporate social responsibility and improve environmental performance.
- To display the Company's Environmental & Sustainability Policy and to increase awareness on site.
- To encourage the use of more sustainable modes of transport.
- Demonstrating McLH's commitment to sustainable transport.
- The maps of public transport to and from the site are displayed and available to all.
- All staff subcontractors and visitors mileage and mode of transport recorded at time of induction.

1.13.4.2 - To Reduce Unnecessary Travel:

- Encourage carpooling or a sustainable form of transport. Potential for living in the local area as opposed to driving the journey on a daily basis.

1.13.4.3 - Staff Awareness of the Travel Plan:

- Ensuring to keep them informed and to encourage carpooling. See Below for travel plan
- Travel plan displayed around welfare facilities and also explained in induction.



Carbon Reduction - Green Travel Plan

General Information

McLaughlin & Harvey construction site is located at 1-3 Ashton Road, The Old Brewery, Bristol, BS3 2EA, Bristol, United Kingdom.

THE GOAL	THE STRATEGY	OBJECTIVES
<p>Encourage sustainable travel to our construction sites as part of our ongoing commitment to minimise the Construction Site's impact on the environment.</p>	<p>McL&H has a responsibility to participate in protecting the environment in which we operate. Our Green Travel Plan increases awareness of sustainable methods of travel to our construction sites including public transport, cycling and walking.</p>	<ol style="list-style-type: none"> 1. Increase site operators and visitors awareness of the various sustainable method of travel to/from site. 2. Continue to improve onsite facilities and support local sustainable choices. 3. Decrease site operator and visitor dependency on single occupancy journeys.

BY BUS

Bus stop is available at Frayne Road, 1 min walk from the site. Visit <https://journeyplanner.travelwest.info> to plan your journey and for park and ride options.

BY TRAIN

Parson Street Station is approximately 19 minutes' walk to site, or Bristol Temple Meads Station is approximately 39 minutes' walk. Visit <https://journeyplanner.travelwest.info> to plan your journey.

BY AIR

The Bristol Airport is 6.9 miles from the site with bus, train and taxi services providing travel alternatives to the city centre.

BY CARSHARE

The site is accessible for cars/vans with onsite parking available. Visit liftshare.com to avail of carsharing options in the area. Alternatively contact reception with your travel details for carsharing options.

BY BICYCLE

The site is accessible for cyclists with racks available via multi-user and on road cycle paths. Visit <https://www.google.com/maps> to plan your journey.

BY SEA/FERRY

The port of Royal Portbury Docks entry for ferry travel and is approximately 8.6 miles from the site. The port of Avonmouth Docks entry for ferry travel is approximately 7.9 miles from the site.

BY FOOT

The site is accessible on foot from the majority of public transport routes via bus, train and taxi services. Visit <https://www.google.com/maps> to plan your journey.

BY CARCHARGE POINTS

Car charge points are available at bp pulse Charging Station, Raleigh Road, Southville, Bristol BS3 1TF approximately 6 minutes' walk. For more information on other charging points visit www.ecarni.com

1.14 Environmental Aspects & Impact Identification

1.14.1 - Aspect Significance:

MCLH staff will identify the environmental aspects on each site and determine those activities over which it is possible for the Company to have an influence, in order to determine those which may have significant impacts on the environment.

1.14.2 - Risk Matrix Analysis Methodology:

MCLH will assign aspects to a ranking matrix based on the probability of occurrence and severity of consequences. Individual matrix cells give an indication of significance.

STEP 1:

All possible aspects and impacts will be identified and listed for all processes, activities and areas under influence of the company and/or project.

STEP 2:

MCLH will categorise each aspect under all identified conditions by likelihood and severity from the criteria given below. The scores for probability of severity are multiplied together and can then be plotted on the ranking matrix (below).

1.14.3 - Ranking Matrix for Significance Evaluation:

Likelihood	High	High	High	High
	Medium	Medium	Medium	High
	Low	Low	Medium	High
		Low	Medium	High
		Significance		

1.14.3.1 - Probability, Likelihood / Frequency Factors:

Low - Unlikely to Occur, Low: 1 – 10 years

Medium - Likely to Occur, Medium: Monthly

High - Very Likely to Occur, High: Daily / Weekly

1.14.3.2 - Significance, Severity Factors:

Low - Minimal Environmental Impact, Minor environmental Damage / Business interruption.

Example - Minor damage to tree branches or roots

Medium - Moderate Environmental Impact, Moderate Environmental Damage – nuisance to public.

Example - Spillage causing significant ground contamination

High – High / Catastrophic Environmental Impact, Serious / Major Environmental Damage – Off site clean-up required, possibility of prosecution.

Example - Major discharge of silty/ oily water into a watercourse or water drainage system, long lasting environmental damage, such as, major habitat loss, significant damage to a protected area such as a Site of Special Scientific Interest (SSSI).

1.14.4 - Operational Risk:

1.14.4.1 - Normal:

Basic control measures in place for identified Environmental Impacts and Aspects (Risks)
E.g. Chemicals stored in bunded container.

1.14.4.2 - Abnormal:

Measures to contain and control unplanned event activated.
E.g. Spillage occurred and being managed using spill kit.

1.14.4.3 - Emergency:

Control measures breached resulting in potential uncontrolled incident that could provide a Pathway to any vulnerable Receptor.
E.g. Spillage is not being adequately managed or is ineffective, (spill is too big for bund and spill kits insufficient, emergency spill contractor required and temporary containment put in place), secondary measures and notifications required.

1.15 Environmental Aspects & Impacts Register

Aspect	Impact	Risk			Control	Residual Risk:	
Environmental Risk:	Potential Hazards or Consequences:	Relevant Y/N:	Severity of Impact:	Probable Frequency:	Impact x Frequency:	Measures to be taken for Normal, Abnormal and Emergency Conditions:	Residual Risk:
Pollution of Watercourses and Land:							
Construction Run-Off/ Groundwater from Excavations	<ul style="list-style-type: none"> Silty and/or contaminated water entering watercourses. Suffocation of fish. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Site wide storm drainage implemented. Onsite gullies to contain gully bags to contain any potential silt run off. Stockpiles and wash areas to be located away from main drainage routes. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Surface Water Drains	<ul style="list-style-type: none"> Release of contaminating substances (such as oils, chemicals etc.) into the surface water drainage system. Adverse effects on the ecosystem. Suffocation of fish and aquatic plants. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Absorbent plant pads in use during refuelling to collect potential drips/spillages. Spill procedure established on site. Double skinned bowsters used for the storage of fuels on site. Daily plant checks carried out to prevent leaks etc. Use of gully guards on site to protect drains. Storage of fuel / COSHH away from drains Stock piles and wash areas to be located away from main drainage routes. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Spillage of Chemicals	<ul style="list-style-type: none"> Chemical entering watercourse. Subject to prosecution. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> COSHH store with suitable bunding in place for storage of chemicals. Chemicals to be carefully handled/used on site. Spill kits provided. COSHH Register Stored away from drainage at least 10 meters. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L

						<ul style="list-style-type: none"> Gullies to contain gully guard which has an oil blanket liner. 	
Spillages of Fuel During Construction	<ul style="list-style-type: none"> Fuel entering watercourse. Subject to prosecution. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Designated refuelling points established on site away from drains and watercourses. Absorbent plant pads in use during refuelling to collect potential drips/spillages. Spill procedure established on site. Double skinned bowzers used for the storage of fuels on site. Daily plant checks carried out to prevent leaks etc. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Vehicle Washings Including Wheel Washing	<ul style="list-style-type: none"> Contaminated water entering watercourses during construction phase. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Wheel washing to be undertaken in designated area. Actions to be taken to prevent the migration of silt into surface water networks. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Cementitious Wash Water	<ul style="list-style-type: none"> Release of highly alkaline water into watercourses/ drains. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Designated concrete washout system to be in place on site and signage available. Only concrete chutes to be washed out on site. Hardened concrete to be removed off site if not suitable for reuse. Wash Water to be appropriately managed as COSHH and PH neutraliser to be used to bring it to a safe level. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Sewage from Welfare Facilities	<ul style="list-style-type: none"> Sewage entering watercourse. Contamination of watercourse. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Site is to be connected to mains water and sewerage supply 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Leakage from unused Tanks/ Vessels During Demolition	<ul style="list-style-type: none"> Potential for fuel/chemicals to enter groundwater. 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M	<input type="checkbox"/> H <input type="checkbox"/> M	<input type="checkbox"/> H <input type="checkbox"/> M	<ul style="list-style-type: none"> Pre-construction information and works information should identify the 	<input type="checkbox"/> H <input type="checkbox"/> M

	<ul style="list-style-type: none"> Contamination of aquifers. 		<input type="checkbox"/> L	<input type="checkbox"/> L	<input type="checkbox"/> L	<p>presence of unused tanks/ vessels during demolition.</p> <ul style="list-style-type: none"> Further surveys and remediation may be required should further unused tanks/vessels be identified during the works. 	<input type="checkbox"/> L
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Discharges to Controlled Waters	<ul style="list-style-type: none"> Potential release of contaminating substances (such as oils, chemicals etc.) into the controlled water/ receiving environment. Adverse effects on the ecosystem. Suffocation of fish and aquatic plants. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Absorbent plant pads in use during refuelling to collect potential drips/ spillages. Spill procedure established on site. Double skinned bowsters used for the storage of fuels on site. Daily plant checks carried out to prevent leaks etc. Use of gully guards on site to protect drains. Works to be carried out inline with agreed Method Statements 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Working in Watercourses	<ul style="list-style-type: none"> Disturbance and damage to watercourse. 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> All works to be undertaken in accordance with the appropriate licences and works information. Regulatory Authority will be consulted and provided with the necessary method statements. 	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L
Contaminated Land	<ul style="list-style-type: none"> Leachates can cause pollution of groundwater and/or local river. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Pre-construction information and works information should identify the presence of contaminated land. Further surveys and remediation may be required should further contaminated land be identified during the works. Watching brief to be carried out during excavations to identify potential contamination. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Material Storage	<ul style="list-style-type: none"> Potential release of contaminating substances/ air emissions into the receiving environment. Concentration of permitted substances in the discharge exceeds permitted levels. Disruption of local ecology/ environment. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Absorbent plant pads in use during refuelling to collect potential drips/ spillages from storage of materials. Spill procedure established on site. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L

Waste:							
General Waste	<ul style="list-style-type: none"> Attract vermin/pests. Disease risk. Windblown plastic waste may cause problems for wildlife. Impact on local resources, landfill dependency and project cost. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Skips are to be segregated, covered and emptied regularly. General mixed waste and recyclables to be segregated at all times. Registered waste carrier and licenced facility to be used. Waste documentation to be retained on site. Wheelie bins to be fully enclosed and contained at all times. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Disposal of Controlled Waste	<ul style="list-style-type: none"> Disposal of waste in incorrect receptacle/area can lead to escape of waste. Pollution arising from waste transport or disposal. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Appropriate waste management licences, carrier's licences and other documentation is to be sought when selecting a waste contractor. Waste Transfer Notes are to be retained on site. Waste Skip compounds to be appropriately sign posted. Waste to be accurately described on waste transfer notes. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Disposal of Hazardous Waste	<ul style="list-style-type: none"> Pollution risk if hazardous waste, such as oils, chemicals, contaminated land, if not disposed of correctly. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input checked="" type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Appropriate waste management licences, carrier's licences and other documentation is to be sought when selecting a waste contractor. Consignment Notes are to be retained onsite from all skip transfers. Hazardous waste to be kept separate from non-hazardous waste at all times. Separate provisions to be put in place for hazardous waste. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Materials Usage/ Resource Use	<ul style="list-style-type: none"> Depletion of resources, disposal problems. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Ensure that only material that is required for the contract is delivered to site. To limit the amount of stockpiled materials. Avoid overordering. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L

Packaging	<ul style="list-style-type: none"> Disposal to landfill. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<ul style="list-style-type: none"> Where possible packaging will be returned with supplier. Where space permits, packaging waste will be segregated to reduce costs from waste contractor. Early discussions with suppliers will address the need for packaging to be reduced where possible. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Asbestos	<ul style="list-style-type: none"> Any works carried out that disturb Asbestos Containing Materials (ACM) can have a potential release of asbestos fibres to the atmosphere. 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Pre-construction surveys to be undertaken to identify the presence of any asbestos. Further surveys will be undertaken if a potential risk is identified. 	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L

Emissions Nuisance:							
Plant/Vehicle Exhaust Emissions	<ul style="list-style-type: none"> Contribution to local and global air quality problems. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Exhaust emissions will be produced by delivery vehicles. No idling policy strongly enforced onsite at all times. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Visual Impact and Temporary Landscape Impact	<ul style="list-style-type: none"> May cause nuisance to neighbours/amenity/tourism etc. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Site hoarding will be erected and regular checks will be carried out on this to ensure it is in good condition. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Construction Noise	<ul style="list-style-type: none"> Nuisance to neighbours. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Regular newsletters to update residents on specific works activities. Noisy activities will be reduced as far as possible, i.e. through the use of silencers, absorbent blankets etc. Works shall only take place within the designated working hours. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Lighting	<ul style="list-style-type: none"> May cause nuisance to neighbours. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<ul style="list-style-type: none"> Impact of additional lighting overspill to be considered, lighting to be pointed inwards and downwards of the development. Lighting shall be turned off when not in use. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Dust	<ul style="list-style-type: none"> From vehicle movements, demolition, stockpiling etc. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Deliveries to be covered where appropriate. Dust suppression to be applied on site when appropriate. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Vibration	<ul style="list-style-type: none"> Detrimental to existing structures/nuisance to neighbours. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Use of vibration monitors, if appropriate, to ensure levels are within nominated levels. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Odours	<ul style="list-style-type: none"> Intrusive smells emanating from site works cause nuisance. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M	<input type="checkbox"/> H <input type="checkbox"/> M	<input type="checkbox"/> H <input type="checkbox"/> M	<ul style="list-style-type: none"> Monitor odours and try to deal with at source. 	<input type="checkbox"/> H <input type="checkbox"/> M

			<input checked="" type="checkbox"/> L	<input checked="" type="checkbox"/> L	<input checked="" type="checkbox"/> L	<ul style="list-style-type: none"> Keep a record of potential sources of emissions and mitigation measures imposed and where implemented recorded. 	<input checked="" type="checkbox"/> L
Ozone Depleting Substances (ODS)	<ul style="list-style-type: none"> Any activities carried out on site that could result in the release of an ODS, such as plant, generators etc., to the atmosphere. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> All plant/generators in use on site to be regularly maintained and serviced in order that they operate as efficiently as possible reducing the release of ODS. The use of generators to be replaced with mains electricity at the earliest opportunity. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Energy:							
Site Cabins/Buildings	<ul style="list-style-type: none"> Depletion of non-renewable resources/carbon emissions. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Ensure that all cabins are in good condition, regularly checked and maintained. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Temporary Lighting	<ul style="list-style-type: none"> Inefficient equipment leading to excessive consumption. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Consideration of the use of energy efficient temporary lighting on sites. Lighting to be switched off when not in use. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Vehicles and Plant	<ul style="list-style-type: none"> Fuel resource depletion, pollutant emissions and project costs. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Ensure all plant and vehicles are regularly maintained as per manufacturer's instructions. Machinery / plant to be switched off when not in use. Daily checks to be undertaken on machinery and plant to ensure defects are picked up. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Transport	<ul style="list-style-type: none"> Transport from and around the site by Employees, deliveries, plant and equipment on site. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Traffic Management Plan implemented on site. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Ecology Bio Diversity and Nature/Heritage:							

Invasive Species	<ul style="list-style-type: none"> • Damage to local ecosystem, infrastructure and wildlife habitats. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<ul style="list-style-type: none"> • Ensure invasive species inspection is undertaken in advance of any works commencing. • All removal to be completed in accordance with agreed method statement and supervised by invasive species specialist where required. • Biosecurity plan to be developed 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
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Archaeology, Natural Heritage, Listed Buildings and Features	<ul style="list-style-type: none"> • Damage to artefacts of archaeological significance. 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L		<input type="checkbox"/> H <input type="checkbox"/> M <input type="checkbox"/> L
Fauna and Flora including Wildlife	<ul style="list-style-type: none"> • Adverse impact on nearby ecosystems and biodiversity and can lead to the introduction or spread of invasive non-native plant species. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> • Ecologist and other specialists, such as landscape architect, to be consulted prior to works taking place. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
Community and Social:							
Impact on or from the Local Community and Business	<ul style="list-style-type: none"> • Potential for road closures or access restrictions. Premises closure permanent or temporary. • Loss of jobs. 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L	<ul style="list-style-type: none"> • Register of Interested Parties for the company has been developed. • Regular communication with local community and business through newsletters and meetings on ongoing construction works. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L

<p>Lifecycle Consideration of Goods, Services and Materials</p>	<ul style="list-style-type: none"> Excessive material usage Lost opportunities for material reuse Use of finite virgin materials 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<input type="checkbox"/> H <input checked="" type="checkbox"/> M <input type="checkbox"/> L	<ul style="list-style-type: none"> Assess the impacts of goods and services supplied and encourage the minimisation of such impacts where possible; Purchase local products and services where possible comply with or exceed all applicable legal requirements; Actively promoting environmental awareness throughout our supply chain; Seeking to work with suppliers and subcontractors who operate under a certified EMS; Using a quantifiable methodology to establish a product's sustainability credentials; Monitoring and reporting our progress, achievements and weaknesses; Ensuring timber products are sourced from a sustainably managed legal source; and Promoting efficient use of resources by challenging designers to ensure most efficient use of energy, water and materials. 	<input type="checkbox"/> H <input type="checkbox"/> M <input checked="" type="checkbox"/> L
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1.16 Environmental IMS References

1090	Toolbox Talk: Material Handling & Housekeeping
1091	Toolbox Talk: Tree & Hedgerow Protection
1093	Toolbox Talk: Energy Efficiency
1094	Toolbox Talk: Dust & Air Quality
1095	Toolbox Talk: Storage & Use of Petrol, Diesels & Oils
1096	Toolbox Talk: Washing Down Plant & Machinery
1097	Toolbox Talk: Pollution - Silt
1100	Toolbox Talk: Birds
1101	Toolbox Talk: Spill Control
1102	Toolbox Talk: Waste & Resource Management
1109	Group Energy & Carbon Management Policy Statement
1110	Group Environmental & Sustainability Policy Statement
1112	Group Sustainable Procurement Policy
1509	Template: Safety & Environmental Observation Report (SOR)
1964	Toolbox Talk: Be a Good Neighbour
2031	Toolbox Talk: Nuisance Noise
2062	Template: Accident/Incident Notification
2069	Guidance: Concrete & Cementitious Wash Water
2102	Guidance: Eco Map – Standard Symbols
2251	Poster: Fuelling on Site
2298	Guidance: Waste Contractor Requirements
2500	Template: Material Off-Site Register

1.17 Environmental Appendices

Please list here any relevant appendices relevant to this project and insert after this page – e.g. ecological/archeology surveys