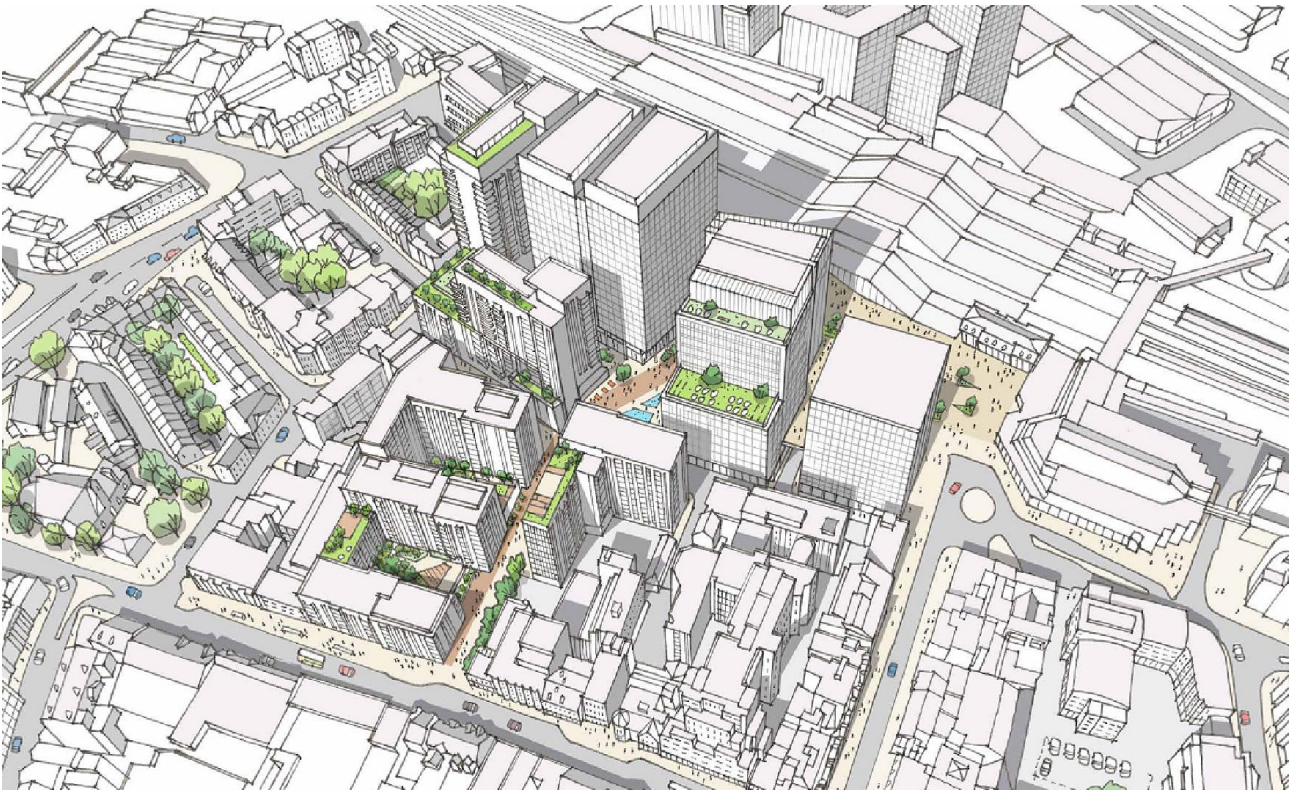


Construction Environmental Management Plan

Station Hill, Reading



18/07/2019

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19/07/2019

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29/07/2019

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Version history

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1.0 Local Planning Policy

This CEMP follows best practice guidelines and has due regard to RBC's Sustainable Design and Construction Supplementary planning Document. This CEMP will be agreed with RBC's Environmental Health Department prior to the commencement of demolition and construction works. This CEMP has been produced in line with planning condition number 35 – Environmental Management

No development shall commence (including works of demolition) on any Plot until an Environmental Management Plan (EMP) (based on the recommendations in Chapter 6: Development Programme Demolition and Construction of the document, "Environmental Statement Volume 1", dated March 2013 by Waterman Group) as amended by Chapter 6 of "Environmental Statement Addendum – Volume 1, Main Text" dated February 2019 for that Plot has been submitted to and approved in writing by the Local Planning Authority. The demolition and construction within the Plot shall thereafter only be undertaken in accordance with the approved EMP (which shall include noise control, hours of construction and controlling exposure to contaminated land), unless the Local Planning Authority approves any variation to the approved details.

As per Waterman's PEA (2018) page 21, measures to be included within the CEMP should comprise:

- In line with local planning policy CS38, those trees which will be retained within the Development should be protected in accordance with local planning policy SG18, the existing retained trees should be protected during the construction phase of the Development in accordance with BS 5837:2012 - "Trees in relation to design, demolition and construction – Recommendations"
- The use of British Standards Best Practice Guidelines to reduce disturbance resulting from noise, surface run-off and vibration during construction works;
- Careful siting and appropriate bunding of storage facilities for fuel and hazardous materials;
- Delivery of oils and fuels to be supervised at all times;
- Dust build up and mud deposits should be avoided and stockpiled material to be covered or stored within a contained area to enable run-off to be treated; and
- Use of trip trays when filling smaller containers from tanks or drums to avoid spillage entering the ground or drainage systems.

1.1 Working Hours

As per planning condition 55 – Block E and condition 64 Block F

No construction, demolition or associated deliveries shall take place outside the hours of 0800hrs to 1800hrs Mondays to Fridays, and 0900hrs to 1300hrs on Saturdays, and not at any time on Sundays and Bank or Statutory Holidays without prior written approval from the Local Planning Authority.

2.0 Introduction

Midgard has a sustainable vision for all its construction sites based upon eco efficient practices and eco effective behaviour. Fundamental to its vision are the continual improvements in environmental performance throughout its sites and an understanding of their corporate responsibility to the communities it works within. The Midgard environmental management procedure sets out the objective to achieve environmental and sustainable development simultaneously with a view to continuously improve the service, quality and commitment it provides.

This Construction Environmental Management Plan (CEMP) document has been produced in outline format. As a live and dynamic document, additions may be made to this plan as the project evolves.

3.0 Environmental Management System

Midgard's environmental policy has been developed in accordance with the nature, scale and environmental impacts of the company's activities. This policy provides a broad framework for setting environmental objectives and targets and delivering sustainable development and has the full support and commitment of the Board of Directors. Our environmental policy includes a commitment to continual improvement in the prevention of pollution and to compliance with the relevant environmental legislation, regulations and requirements. The Policy is updated annually and forms part of the EMS, which is certified to ISO 14001: 2015 standard.

It is the responsibility of the Project Manager to ensure effective implementation and understanding of the environmental management system. This should be undertaken with the support of environment manager, advisor, specialists and other suitably qualified personnel. It must also be made clear to all site personnel that each individual has a responsibility to ensure no environmental incidents occur.

The following outlines the processes and plans to be implemented on site to ensure all environmental aspects and impacts are identified and sufficient measures are put in place to reduce risks associated with the works.

3.1 Aspects & Impacts Register

In line with Midgard Ltd. procedures, an Aspects and Impacts Register and Risk Assessment has been completed for the project in order to reduce the environmental impact of our site activities. This register also includes the control measures which will be put in place to minimise our environmental impacts. The Project Manager is responsible for ensuring that the control measures are fully implemented and monitored. The Risk Assessment is scored by analysing whether the aspects are regulated by legislation, are a contractual requirement and according to the likelihood and severity of the aspect occurring.

The Significant Environmental Aspects which have been identified for this project are:

- Noise
- Vibration
- Air Emissions
- Groundwater Discharge
- Hazardous Generation

3.2 Project Details

Station Hill development is a large development on largely derelict and unused land adjacent to Reading train station. The scheme area has been divided into several plots of differing use, the main being;

- Multi Story Car Park
- Office/commercial space
- Mixed Commercial and residential use

Station Hill development will rejuvenate an essential part of Reading by providing mixed commercial and residential property within an existing developed area of Reading. The design allows for a split between commercial and residential within the same building footprint between ground floors (Commercial) and upper floors (Residential), this also incorporates lower level parking. As such the design focuses on providing people with open areas and welcoming space with Landscaping being a key item.

3.2.1 Midgard Scope of Works

The works comprise of two Blocks core E and F.

Midgard Limited is the proposed Principal contractor for the works.

Midgard Limited is a company of the JRL Group of Companies, and hence can at any time during the construction of the works, call upon the directly controlled resources of the Group.

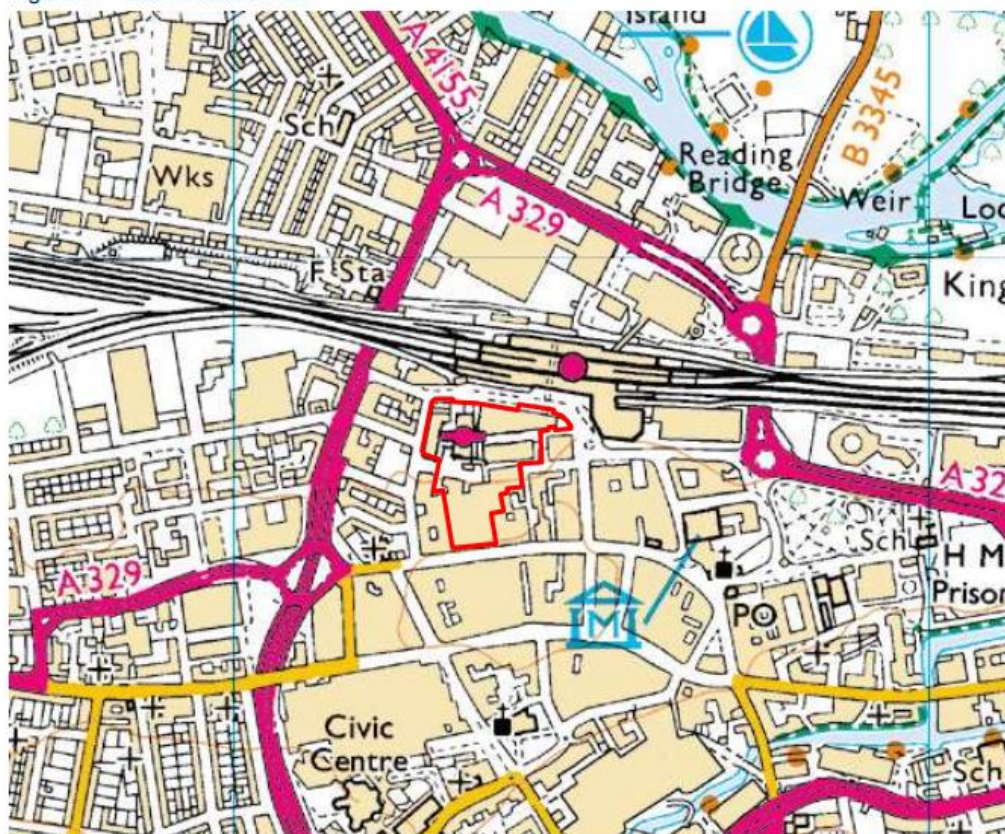
Below is an overview of the construction schedule which will run over 156 weeks in total starting from 2nd December 2019

- Site mobilisation 6 weeks.
- Piling works 12 weeks.
- Substructure up to podium (level -1) May – November 2020
- Overall completion 156 weeks

3.3 Site Location

Address: Station Hill, Garrard Street, Reading, RG1 1NB.

Figure 1: Site Location Plan



Key



Site Location

4.0 Environmental Contractual Requirements

Requirements	Summary of Requirements
Client Requirements	<i>To be confirmed with the client at a later date</i>
Contractual Obligations	- BREEAM New Construction 2018: Excellent rating (70%) - Compliance with the 'BREEAM Contractors Design Stage Evidence Requirements' document produced by Hoare Lea.
Specific local authority agreements	- Section 61 Agreement - Planning consent and S106 Consent (please refer to the planning condition trackers for further information on the below) <u>Plot E Planning conditions with environmental consideration:</u> 19 - Sustainability 20 – BREEAM 22 – Habitat Mitigation 27 – Contaminated Land 28 – Gas Monitoring 31 – Bird Nesting 32 – Demolition Management Statement 33 – Construction Management 35 – Environmental Management 54 – Dwelling Emission Rates 55 - Construction & Demolition Hours 64 - Poor Air Quality Mitigation 65 – Air Quality Assessment <u>Plot E Planning conditions with environmental consideration:</u> 19 - Sustainability 20 – BREEAM 22 – Habitat Mitigation 27 – Contaminated Land 28 – Gas Monitoring 30 – Updated Bat Survey 31 – Bird Nesting 32 – Demolition Method Statement 33 – Construction Management 35 – Environmental Management 46 – CFSH/BREEAM 50 - Demolition/ construction 64 - Construction & Demolition Hours

	66 - Dwelling Emission Rates 67 - BREEAM Certificate 69 - Poor Air Quality Mitigation 70 – Air Quality Assessment
Requirements from previous studies or/and reports	- Preliminary Ecological Appraisal (2018), Waterman. - Bat Survey Report (2018), Waterman. - Environmental Statement Addendum (2019) Waterman
Other Statutory Authority Requirements	Thames Water GWD Licence

5.0 Project team Roles and Responsibilities

All members of the Project team are responsible for the effective planning, implementation, management, monitoring and review of all environmental control measures identified in this plan.

It is the responsibility of the Project Manager to ensure that team members are aware of their environmental responsibilities and that they are suitably trained as necessary.

Name	Responsibilities
Tyrone Cutts Project Manager	<i>To write and maintain the CEMP.</i> <i>To complete the Environmental Aspects and Impacts Register.</i> <i>To inform subcontractors and suppliers of significant environmental impacts and control measures required to minimise them.</i> <i>To request, review and comment on the subcontractors' method statements.</i> <i>To manage and control all of the environmental documentation produced on this project</i>
Abigail Elliott Environment Manager/Advisor	<i>To carry out monthly SHE 8E site inspections</i> <i>To carry out formal environmental management system audits.</i> <i>To advise the project team on environmental queries</i> <i>To champion and promote environmental best practices on site.</i>
Liam Boughton Environmental Champion	<i>To sign the 'Environmental Compliance Letter'.</i> <i>To carry out weekly SHE 6E environmental inspections.</i> <i>To check waste transfer notes are compliant and collate in the site file.</i> <i>To check timber delivery notes are compliant and collate in the site file.</i> <i>To collate material delivery notes in the site file.</i> <i>To provide water and electricity meter readings and photos of meters to the Environmental Coordinator.</i> <i>To provide fuel consumption figures to the Environmental Coordinator.</i> <i>To provide the NRMM details for all plant on site to the Environmental Coordinator.</i> <i>To promote awareness of the SWMP among the workforce.</i> <i>To enforce waste segregation on site (i.e. separate hazardous waste streams in separate Hazibags).</i> <i>To conduct a monthly environmental toolbox talk to raise environmental awareness amongst the workforce.</i> <i>To conduct on-site training with the workforce (e.g spill kit training) when advised by the Environmental Team.</i>
Ricardo Pinto Environmental Advisor	<i>To collate monthly environmental data provided by the Environmental Champion</i> <i>To assist the site in preparation for Considerate Constructor Audits.</i> <i>To assist the site with maintaining a good relationship with local residents.</i>

*To arrange events with local charities, schools etc.
To champion environmental best practices and the considerate constructors scheme on site*

6.0 Nuisance

Nuisance for the purposes of this document is broken into four sections, namely Dust, Noise, Vibration and Lighting. The following sections detail activities and control methods to be implemented on the project.

Sensitive receptors likely to be affected by construction nuisance include:

- There are several shops occupying the frontage of Friar Street due for vacation before works, the contractor may be required to take this into account and make allowances for access and security.
- Friar Street is a busy open public footpath to which protection will be required. Properties neighbouring Friars walk are occupied about the existing building and require party wall approval, Sainsbury's to the West and 9Round (No. 30 - 40) to the East.

6.1 Dust Mitigation

Appropriate preventative measures to control dust emissions can significantly reduce the potential for dust generation. A robust site specific dust mitigation strategy will be adhered to at all times and briefed to all workers on induction and via Tool box talks. The table below outlines how we aim to avoid impacts rising from dust that could affect our neighbours and the local environment. These environmental management controls follow best practice guidelines to prevent the release of potentially contaminated dust entering the atmosphere and/or being deposited on nearby receptors and have been developed with reference to the Building Research Establishment (BRE) guidance 'Controlling Particles, Vapour and Noise Pollution from Construction Sites - Set of Five Pollution Control Guides'.

Risk	Mitigation
Construction Traffic	• All construction traffic will follow specifically designated routes • Speed limits (5mph) will be put into place on site for all vehicular movements • All vehicles carrying loose material will be covered • Wheel wash facility to be used for vehicles leaving site • Ensuring that construction traffic does not pass along sensitive roads (residential roads, congested roads, via unsuitable junctions, etc.) where possible • Timing of large-scale vehicle movements to avoid peak hours on the local road network • Implementation of no engine idling policy
Highways	• Where appropriate, use of road sweepers will be incorporated to ensure highways remain clear of dust and mud • Road edges and pathways will be swept by hand and damped down as necessary
Plant & Machinery	• Use of gas powered generators rather than diesel if possible (these are also quieter) and • Ensuring that all plant and vehicles are well maintained so that exhaust emissions do not breach statutory emission limits; • Switching off of all plant when not in use;

Construction Methods	• Sheeting of buildings, chutes, skips and vehicles removing demolition wastes; • Building elevations which front public boundaries or are immediately adjacent to adjoining properties would be fully scaffolded and completely enclosed by sheeting to provide a dust and safety shield during the demolition process; • Appropriate handling and storage of materials, especially stockpiled materials; • Restriction of drop heights onto lorries and other equipment; • Use of 'deconstruction' demolition techniques, where appropriate;
Stockpiles	• To be sealed or sprayed as required • Location of stockpiles away from any sensitive receptors
Dust Suppression	• Mobile bowzers to be deployed on site at regular intervals. Activity to be increased during significantly dry and windy periods • Where necessary, use of hoardings to be considered to ensure reduction in dust migration. • Deliveries of significantly dusty materials to be sprayed to reduce dust potential. • All cutting and grinding operations to be conducted in ways to reduce risk of dust migration (wet cutting techniques etc.)
Monitoring	• Noise and dust monitors will be installed along the perimeter of the hoarding. • Ongoing visual monitoring to be undertaken by site personnel on regular basis, both on and off site to ensure no migration of dust • Regular liaison with the Council's EHO and Client to be undertaken throughout the project • Regular reviews of mitigation methodology to be undertaken by Environment Manager and Project Manager

6.2 Noise and Vibration

Noise and vibration will be managed by applying best practicable means as defined under Section 72 of the Control of Pollution Act (COPA) 1974, to all activities, including the following:

- Carefully select equipment and construction methods to reduce noise and vibration.
- Use of hoardings or screens as noise barriers.
- Locate plant as far as reasonable practicable from receptor.
- Ensure that plant is shut down when they are not in use.
- Construct temporary infrastructure (e.g. haul roads) of materials that minimise noise and vibration.
- Monitor the noise levels regularly to confirm the noise level of site activities.
- Include noise minimisation practice in induction.
- Liaise with the community to provide information of the noise work activities and their durations.
- Arrange delivery times to suit the area, for example for residential areas.

6.3 Light Disturbance

The surrounding vicinity to the site currently creates a significant amount of light pollution. Any further task lighting required on the project is not expected to cause a nuisance. All task lighting, however, will aim to minimise the impacts of light spillage on adjacent retained habitats as far as reasonably practicable by ensuring any security lighting that is left on overnight is kept to a minimum and away from any sensitive receptors.

7.0 Waste Management System

A Site Waste Management Plan will be completed when we confirm our waste management suppliers. It will contain:

- Procedures and commitments for minimising non-hazardous waste
- Procedures for minimising hazardous waste
- Procedures for monitoring, measuring and reporting hazardous and non-hazardous site waste
- Procedures for sorting, reusing and recycling construction waste into defined waste groups, either on site or through a licensed external contractor
- The name or job title of the individual responsible for implementing the above
- Identification of the key refurbishment/demolition materials.
- Potential applications and any related issues for the reuse and recycling of the key refurbishment and demolition materials.
- Diversion of resources from landfill:
 - 70% (by volume) of non-hazardous construction waste shall be diverted from landfill
 - or 80% (by volume) of non-hazardous demolition waste shall be diverted from landfill

7.1 Disposal of Non-Hazardous Waste

All non-hazardous waste will be removed from site within strict adherence to all waste legislation requirements, including Duty of Care Regulations. Prior to any agreed use of hauliers or waste disposal sites, the appropriate licences will be thoroughly checked to ensure that particular waste streams can be accepted and carrier licences are valid. This can only be undertaken by authorised personnel and copies of all necessary licences must be retained on site at all time and reviewed for expiry. No waste will leave site without appropriate waste transfer notes. It is essential that all waste transfer notes are inspected for detail and must contain the correct description of waste as well as the correct waste code, in line with the List of Waste Codes Regulations.

7.2 Disposal of Hazardous Waste

The Project Manager will ensure that the hazardous waste is segregated, stored safely and that measures are implemented to avoid contamination of other waste. This will be achieved using “Hazibags” which are flexible intermediate bulk containers (IBC) which is UN approved for Packing Groups II and III. No hazardous waste will leave the site without the correctly completed Consignment Note. The consignment notes must contain all necessary information including waste description and hazardous waste registration number. Any carriers removing hazardous waste must have appropriate licences and disposal sites must be verified to be able to accept waste being sent. These checks and signing of consignment notes can only be undertaken by authorised personnel. All hazardous waste must be stored on site in appropriate, covered or locked skips. No mixing of hazardous and non-hazardous waste is authorised.

In both instances above waste disposal options will look to ensure minimal transportation requirements where financially viable.

7.3 Waste Reporting, Records and Location

All waste transfer / consignment notes will be held on site throughout the duration of the project. Each waste transfer will be fully documented and the Site Waste Management Plan updated accordingly with waste carriers and disposal details.

8.0 Protection of Water Resources

Erection of concrete structures during the construction will be monitored to prevent associated contaminated material entering any watercourses. Pre-cast work or permanent formwork will reduce the amount of in-situ concreting required. Washing out of concrete wagons or other equipment used in concreting operations will be undertaken in designated contained washout areas. These will be located away from all watercourses and drains and will be impermeable to prevent infiltration to ground.

Where stockpiles have to be located with a direct path to a watercourse a bund will be in place to reduce all pollution risks.

The positioning of fuel storage tanks and other potentially polluting materials and maintenance/refuelling facilities will be on bunded areas of hard standing with dedicated drainage systems. Stored materials on site will be checked regularly for containment integrity (both primary and secondary), quantity stored and security of storage.

Spill kits will be made available, and site operatives trained in their use, to deal with any spillages. All spill kits will be fully stocked and kept dry at all times.

Further recommendations as per Waterman's ES page 20 can be found below.

- Surface drainage to pass via settlement and oil interception facilities, where required, and discharge arrangements to be agreed with the Environment Agency or, in the case of discharges to sewer, Thames Water;
- Water which may have come into contact with contaminated materials to be disposed of in accordance with the Water Resources Act 1991 and other legislation, and to the satisfaction of the Environment Agency and/or Thames Water;
- The piling systems would be designed and constructed to minimise effects on the aquifer;

9.0 Transportation and Traffic Management

A traffic management plan has been implemented on the site. The plan outlines timings of deliveries and routes to be taken by hauliers and workers to ensure minimal disruption to local residents and businesses. This includes potential risk for noise disturbance as well as minimising additional traffic during peak periods.

10.0 Land Contamination

Recommendations as per Waterman's ES page 20

Pre-Treatment of Spoil and Demolition Material

All material to be excavated and removed off the Site would be subject to waste classification sampling and analysis and necessary treatment would be undertaken, in accordance with the requirements of the Hazardous Waste Regulations 27 and the List of Wastes Regulations 28

Groundwater encountered within excavations would be pumped out and either treated prior to disposal to sewer under a Trade Effluent Consent from Thames Water Utilities Ltd (TWUL) or disposed of to a suitable licensed treatment facility.

Spoil containing 'leachable' (i.e. soluble or mobile) contaminants would be identified and suitably contained by bunding or other containment measures, including segregation and sheeting of contaminated spoil and storage on areas of hardstanding or other impermeable surface. This would prevent the release of contaminated run-off and thus protect groundwater and surface water resources.

The adoption of appropriate measures to remove asbestos would be required prior to demolition work.

During all demolition and construction works, precautions would be taken to minimise the exposure of workers and the general public to potentially harmful substances. Attention would be paid to restricting potential off-Site nuisances, such as dust and odour emissions. Such precautions would be included within working method

statements and the CEMP (as required by Planning Conditions 32, 33 and 35 on the SH3 Scheme Planning Consent) and comprise:

- Personal hygiene, washing and changing procedures;
- Personal Protective Equipment (PPE), including use of disposable overalls, gloves, respiratory
- personal protection and particulate filter masks;
- Adopting dust suppression methods, e.g. water spraying, wheel-washing facility for vehicles leaving the Site; and
- Regularly cleaning all on Site roads, access roads and the public highway.

Prior to construction, provide a Safety Method Statement, which would show how the safety of the work force and the public will be addressed.

11.0 Ecology

The protection of the wildlife and natural features must be adopted on site to ensure that construction activities cause the least damage to the surrounding natural environment. Our Project Team will:

- Liaise with subcontractors to ensure that their activities will not be damaging the flora and fauna on site.
- If protected species are discovered during construction, work will be stopped immediately.
- When trees are found on site, Tree Preservation Order (TPO) is applicable.

As per Watermans PEA (2018) page 22, which is in line with local planning policy CS36 and Outline Planning Condition 22, it is recommended that the future scheme designs provide the following ecological enhancement measures. The following measures should be considered:

- It is recommended that trees on Site are retained where possible, and placed under a suitable management regime, as part of any future Development proposals;
- The use of native species or species of benefit to wildlife within any proposed landscape scheme to provide foraging opportunities for birds, bats, invertebrates and other fauna is recommended to enhance the Site for wildlife;
- The provision of a variety of habitats to provide floristic diversity e.g lawns, hedgerows, shrub planting and herbaceous planting;
- Additional habitat could be created above ground level utilising roof top space to provide suitable foraging opportunities for local fauna such as bats, bird and invertebrates. Brown roofs should be provided with a gravel substrate and allowed to self -seed with ruderal/ephemeral species. Green roofs could also be provided by creating grassland on roofs by sowing sedum and hardy plant species in shallow low-nutrient soils. Such habitats would provide a food source for invertebrates on which birds and bats may feed. They are also ideal for incorporating bat/bird boxes; and
- Artificial habitats for bats and birds to enhance the Site for these species group.

12.0 Resource Use

Midgard will ensure, where practicable, the use of recycled or sustainable materials sourced from a responsible source, where possible BES 6001 certified. Furthermore, in line with company protocol, all concrete should be obtained from a certified sustainable source, wood must have chain of custody documentation and be FSC/PEFC certified and steel should have Cares or similar certification.

A dedicated area will be maintained for storage of all materials and due care and appropriate handling will be undertaken at all times to reduce any risk of damages and wastage. Packaging of items should not be removed until required, to ensure maximum potential for returning of unused goods.

13.0 Energy Consumption/Monitoring

“Switch it Off” schemes and other energy saving campaigns shall be implemented on site to encourage all personnel to consider their carbon footprint. Use of car sharing and buses shall be encouraged as outlined in the CTMP. Posters shall be clearly displayed within the site offices to ensure all personnel are aware of the CTMP requirements. This shall also be covered within the site induction and regular toolbox talks held relating to the subject.

14.0 Community Liaison

The Site manager will take charge of all day to day liaisons, with further support from the Environmental manager who will be on site on a monthly basis. A regular newsletter, outlining progress, potential disturbances and contact details will be distributed to neighbouring properties, as well as displayed on the sites notice board. The site notice board will also display Contact details for the general public to be able to contact the contractor and ask questions, queries or file a complaint.

15.0 Site Environmental Documentation

All environmental documentation must be kept on site at all times and be available for inspection by internal and external auditors, as well as the client and management. Where any document is amended, previous versions will be superseded and the Environment Manager notified. Site personnel will be made aware immediately, if any significant changes in works procedures are implemented.

- Initial start-up documentation will include the following:
- Construction Environmental Management Plan
- Site Waste Management Plan
- SHE 6E Site Managers Weekly Checklist
- Environmental Emergency Plan
- Aspects, Impacts and Risk Assessment Matrix

16.0 Auditing and Monitoring

A regular audit schedule will be set up at project start. This audit schedule will include both internal inspections and audits for the project. It is the responsibility of the site management to ensure all documentation and evidence required for audit purposes is kept up to date and freely available for inspection at all times.

A weekly site inspection using the SHE 6E Weekly Environmental Checklist will be carried out by a site manager to ensure environmental risks are being managed appropriately. A monthly scored audit will also be carried out by the Environmental Manager to ensure the inspections are being carried out correctly and the site’s environmental performance is in line with company policy. The site environmental management system will be audited to the standards set out by ISO14001.

Additional legal compliance audits will also be undertaken at inspection and audit. Any system failures will be documented and appropriate corrective actions issued and implemented. All documents will be filed and retained on site for auditing purposes. Any failure to undertake such monitoring will be deemed as a non-conformance with procedure and appropriate corrective action will be implemented. The action and time limit required shall be specified for each non-conformance and will be addressed as a matter of priority.

17.0 Control of Dust and Emissions Method Statement

Activity	The Control of Dust and Emissions arising from construction works at Station Hill
Description	As a responsible contractor, Midgard have based its control of dust and noise emissions from our construction activities on the WSP air quality report 2008, the Greater London Authority Best Practice Guidance and (BRE) guidance 'Controlling Particles, Vapour and Noise Pollution from Construction Sites - Set of Five Pollution Control Guides'. Midgard intends to use Best Practicable Means BPM, to prevent dust and other pollutant emissions from being carried outside of the site boundary. This method statement is for the duration of the whole contract, but will be reviewed periodically as the contract reaches different milestone stages.
	Pre-Site Preparation All site staff will be fully trained and competent for the role they are to undertake on site. Erect solid barriers to site boundaries. Pre sit planning to ensure all Site fuel, machinery and chemical storage, and dust generating activities should not be located close to boundaries or sensitive receptors where possible. Haul Roads The haul roads will be inspected for potholes, puddles and dusty conditions on a daily basis, well maintained haul roads will reduce the dust levels of construction traffic. Dampening down methods will be a road sweeper on the hard stand haul road into site and the public road leading to site. Site Entrances and Exits Wheel washing facilities will be provided to ensure no fugitive dust particles are taken off site. Vehicles leaving site with dusty or loose material will all be covered before leaving site. Excavations and Earthworks All dusty activities should be damped down, especially during dry and windy weather. Minimise the drop heights to control the fall of materials in the air. Stockpiling will not be required and therefore not permitted throughout the lifespan of the project. Chutes and Skips Securely cover skips where dust or loose detritus can become windblown. Minimise the drop heights to control the fall of materials. Regularly dampen down surfaces within in the skips with water. Waste Management A site specific waste management plan has been developed and workers will be briefed on it stipulates through site inductions and tool box talks. Hazardous or Contaminated Materials COSHH assessments will be done for materials coming to site to take into account risks to the workforce from exposure to any harmful substances generated by work activities. All Hazardous materials/waste will be properly signed and segregated. Dealing with spillages Use bunded areas wherever practicable. Regularly inspect the site area for spillages, ensuring that spillage kits are readily available. Ensure an update to Spill Pollution Incident

	Report Plan (SPIRP) is posted in and around the COSHH store and ensure all staff are briefed on it. Clean the spillages using the agreed wet handling methods. These will be in the COSHH assessments once the design has established the exact materials to be used. Inform the Environmental Agency, London Fire & Emergency Planning Authority [LFEPA] or the Health Protection Agency [HPA] if harmful substances are spilled. Tarmac Laying and use of Bitumen Do not overheat bitumen as this may catch fire and cause smoke; always keep the pots covered with lids. Use great care in all of the processes to prevent spillages and extinguish any accidental fires immediately. Noise and CO2 Emission Controls for Vehicles and Plant Construction Traffic, On or off site All vehicles are to switch off engines when not in use. A strict 5mph limit will be in place through the site, where possible low sulphur fuel will be used. . All plant must have upward facing exhausts to disperse fumes effectively and equipment well and regularly maintained. Cutting, Grinding and Sawing Ensure that power tools have extraction fans or water dust suppression appliances near to face of the works. Ensure that the fans and filters on the plant are serviced regularly in accordance with the maintenance regimes. Water suppression equipment should also be regularly maintained to ensure the proper level of protection is given. Breaking down Piles Midgard shall be using a method for breaking down piles designed to crush the pile using hydraulic machine attachments, along with this all the piles will have foam inserts on each up-stand of rebar. The crush action creates a horizontal cut and foam allows large sections of the pile to be extracted. This method will eliminate the dust considerably that is usually generated from breaking piles. The pile on occasions will be hand trimmed with angle cutters and light breakers. Dust control Both of the aforementioned activities will be subjected to localised water suppression supplied from reusing the ground water from the settlement tank to minimise fresh water use on site. On site soakaways are being utilised for sustainable drainage.
<i>Responsibilities</i>	Managers/supervisors TBC Environment Manager Caroline Slevin
<i>Risk Assessments</i>	See Risk Assessments: - (BO-JRL-EM-XX-RA-Z-0001) to (BO-JRL-EM-XX-RA-Z-0010) inclusive
<i>Controls</i>	Procurement packages will be sent out containing the best practice guidance “The control of dust and emission from construction and demolition” to the companies who are to make deliveries of materials and plant to site. Along with this Method statement. All people are report to the security main gate for deliveries and visitors to site office. All people coming to site require a site Induction for Site workers or site visitors. Site Boundaries are to be inspected visually daily and a written inspection every seven days unless adverse weather, or a breach or damage has occurred to the boundary.

	Pre-planning of deliveries coming to site, must be a strict regime as the site entrance road will not be able to take queuing traffic. Deliveries will be turned away if they cannot be accommodated. Muck away at busy times are to be called on request from the local tip. During wet conditions on site all vehicles will be washed within the wheel wash area. A permanent road sweeper will always be in attendance on site. A site story board telling site operatives and visitors of site activities going on site of the hazards and exclusion zones within the site. Designated smoking areas on site anywhere else will be instant dismissal. Spill kits will be located near fuel bowsers. Spill kit training and pollution prevention training will be given to all site operatives. If required further dust suppression measures to mitigate dust displacement will be initiated, such as covering up ground or materials, increase water suppression and		
PPE Requirements	White Hard Hats for all site personnel with exemption of the managers/supervisors who will have black. Yellow High Visibility coats or Surcoats to be worn by all with the exemption of traffic banksmen & crane banksmen who will wear orange ones. Steel toe-capped work boots, shoes or wellingtons with Midsole protection strip for all site personnel. All other PPE will be identified through risk assessments and specific safe systems of work		
Emergency Arrangements	There is an emergency contingency plan that will be available and briefed at induction, but also named people are responsible for carrying out the actions when an emergency occurs. On site there will be trained people for the use of spill kits and their disposal. Trained fire marshals, which will assist in fire drills every six months during the contract. Inform the Environmental Agency, London Fire & Emergency Planning Authority [LFEPA] or the Health Protection Agency [HPA] if harmful substances are spilled. Inform the LFEPA and Police if a fire or smoke is on site and /or going to be impacting on third parties. Access routes to nearest A&E are displayed in welfare area and on the story boards There will be named, and fully trained first Aiders on site during site hours.		
Temporary amended systems	Exclusion zones will be pre-planned and then displayed on site storyboard and instructed via briefings		
To whom the information has been submitted	All site personnel. The Client All third parties should they request it		
Monitoring & Compliance	Carry out daily visual inspections of site activities for dust controls and site conditions and record in site diary. There will be an accurate log kept for complaints from third parties, with a contact number available on the site boundary. Have a five day and daily weather report with wind direction for planning purposes on dust control. Numerous site audits, for safety, environment and quality will be undertaken by Midgard at group level and external audits will also be conducted via the various organisations that the group belong to and the client wish to audit the site [NHBC, Considerate contractors, etc.]		
Prepared by:		Date:	

Operatives / Staff carrying out these works will be informed of the contents of this method statement			
Signed by:		Date:	
(Person supervising the works)			
For and on behalf of:			

18.0 References

- Midgard Environmental Management Policy
- Environment Weekly Checklist SHE6E
- Environmental Emergency Preparedness Plan
- Project Aspects and Impacts Register

18.1 Midgard Environmental Management Policy



Environmental Policy

This statement is a declaration of the director's intent to go above and beyond the organisation's environmental compliance obligations. Midgard not only has a responsibility to protect and where possible, enhance the environment, but also recognises its place to influence sustainable design through an informed and engaged workforce. Midgard must also strive to continually improve the environmental management system and aim to enhance environmental performance.

Midgard will; -

- Employ an environment team to oversee all environmental compliance, monitor and report on environmental metrics, meet client requirements and manage, audit and report on the environmental management system to senior management.
- Comply with all relevant legislation, client and other industry requirements.
- Support a company culture that promotes ownership and responsibility of environmental matters and champions best practise across the company.
- Ensure it has the competencies and resources to effectively implement the environmental management system across the company.
- Prevent environmental pollution, with a specific focus on activities associated with fuel storage, concrete wash out, noise and vibration and site waste management.
- Reduce the environmental impacts of our projects by designing out waste and adhering to the waste hierarchy.
- Set annually reviewed measurable and realistic environmental objectives and targets to demonstrate continuous improvement across the Midgard business.
- Work with our supply chain to source environmentally sustainable materials whilst remaining cost effective.

The Directors, senior management and Environment team are responsible for the management of environmental issues and the implementation of this policy across the company and will ensure the appropriate resources are available. This policy and our overall environmental performance will be reviewed on an annual basis, or if necessary, in light of legislative or organisational changes.

A handwritten signature in black ink, appearing to read 'K. Keegan', written over a horizontal line.

Kevin Keegan
Director
January 2019

18.2 Environment Weekly Checklist SHE6E

Environment Checklist (SHE6E)				
Site Location:				Date:
Responsible manager:				
Monitoring conducted by:		Signature:		
Monitoring checks		Yes	No	Observations noted and actions required (by who and by when)
1.	Is there an environmental site file containing up to date: - CEMP, SWMP, SHE 6Es, permits, applicable licenses, toolbox talks? - EKPI's (fuel tickets, waste transfer notes, delivery notes, water/electric meter readings etc.)? - COSHH assessments?			
2.	Has an up to date plant and machinery list been provided to the environmental team?			
3.	Good housekeeping, hoarding well maintained?			
4.	Waste segregation: - Are hazibags being used for collection of hazardous waste? - Are other waste streams segregated (where possible) on site? - Waste Transfer/Consignment Notes compliant and filed on site?			
5.	Is there any groundwater discharge on site, if yes is there: - Appropriate discharge licence? - Settlement tank and flow meter?			
6.	Is concrete being washed out into skips or other concrete solution used on site?			
7.	COSHH – Are there sufficient bunds, drip trays, plant nappies and spill kits			
8.	Is noise/vibration being monitored on site?			
9.	Dust control and arrangements: - Is dust being monitored on site? - Are grounds watered? - Stockpiles covered or watered - Vehicles covered prior to leaving site?			
10.	Are trees/habitats adequately protected? (if applicable			

18.3 Environmental Emergency Preparedness Plan (EPPP)

19.0 Scope

Midgard's Environmental Emergency Preparedness Plan aims to minimise the environmental impact of the potential environmental incidents due to occur during the duration of the works. This document will describe the environmental risks defined as unplanned, undesired events that could result in harm to people and/or damage to the environment.

Midgard's will ensure the site activities comply with legal and contractual requirements and are developed in a way to minimise their impact to the environment and human health.

20.0 Emergency Contact Details

Name	Contact Details
Project Manager	Tyrone Cutts
Emergency Services	999/112 and Local Hospital Royal Berkshire Hospital London Rd Reading RG1 5AN 0118 322 5111
Environment Agency	0370 850 6506
Group HSE Director	Ben Dixon 07789 957445
Environmental Manager	Caroline Slevin 07554 848139

21.0 Environmental High Impact / Risks

The following environmental high impacts have been identified:

Environmental Risks	Impact / Effect	Control Measures	Response
Fire	Emissions of toxic fumes and smoke to atmosphere.	Fire drills on a regular basis. Site fire risk assessment. Firefighting equipment in agreed locations around the site. Emergency evacuation plan. Trained traffic wardens and first aiders.	Refer to JRL Group <i>Fire & Emergency Plan (H&S)</i> .
Explosion	Emissions of toxic fumes and smoke to atmosphere.	Safe storage and use of flammable substances and compressed gases.	▪ Contact the alarm. ▪ Activate emergency evacuation plan. ▪ Contact the emergency services.

Discovery of suspect site contamination	Emissions and exposure to contaminated material. Release of toxic substances to the environment.	Awareness training to the workforce.	If site contamination is suspected: - Stop all work immediately. - Evacuate personnel to a safe distance. - If safe to do so, cordon off the area to prevent access. - Inform Project Manager and/or Site Supervisor of the incident. - All personnel are to remain in the vicinity (at a safe distance from suspect material) until actions are agreed. - Complete the incident using the Environmental Incident Form (SHE 19).
Fuel/oil/chemical spillage	Release of chemicals to the environment. Toxic substances entering drainage systems or water courses. Environmental damage to aquatic life.	Hazardous waste containers clearly identified on site. Availability of spill kits to contain spillages and good housekeeping. Clear diagram of the site layout and access details, along with a schematic representation of the site drainage. Emergency spillage control team.	Refer to Section 5 <i>Emergency Spillage Response and Control</i> of this plan <i>the Plan</i> below.
Pollution incident	Release of toxic substances to the environment.	Best environmental practices on site. Control measures specified in the SEMP. Environmental trainings and toolbox talks to all employees.	Contain, recover, clean up and dispose of the pollution that has occurred (provided that this can be done without risk to their health or safety). Complete the incident using the Environmental Incident Form (SHE 19).

22.0 Training

All operatives working on the project must undertake a site induction. The induction will include information with regards to environmental aspects and impacts of the project and the preventive measures to be taken in the event of an environmental incident.

Prior commencement of the works on site a method statement briefing will be provided by the site supervisor and/or health and safety manager. These briefings will comprise the relevant environmental impacts of the activity to be carried out as well as the procedures that must be followed in the event of an emergency.

Environmental toolbox talks will be provided on a monthly basis and emergency procedures will be explained during the induction training. Emergency spillage procedures and awareness training will be regularly provided to the workforce.

23.0 Environmental Emergency Spillage Response & Control

23.1 Controlling Spillage

In the event of a spillage the following procedure will be carried out:

- Step 1: Assess the situation
- Step 2: Contain the spill and stop it spreading
- Step 3: Report the incident
- Step 4: Clean the spillage up

23.2 STEP 1: Assess the situation

It is important to assess the situation to identify whether the spillage is safe to contain, what has happened and what to report. The following aspects must be considered:

- Has anyone been injured?
- Is the spillage escaping into open water (river, stream, and ditch) or drainage system?
- Is spillage safe to approach or will you need assistance?
- Do you have the correct PPE?
- REMEMBER SAFETY FIRST!!

23.3 STEP 2: Contain the spill and stop it spreading

Should a spillage of a substance harmful to the environment occur anywhere on the site, the following actions must be carried out

1. Remove and exclude persons from the danger area where appropriate

Assuming the spill incident is safe to approach, it is important to isolate the source and prevent the spillage's spread:

2. Stop flow from source of spill.
3. Contact the Environment Team as soon as practicable.
4. Assemble at the spillage area with appropriate clean-up equipment.
5. If spillage is escaping or is likely to enter into drains or open watercourse use absorbent material to block off flow. Request external assistance to manage effects downstream.
6. Use absorbent granules, sand or other absorbent material to contain spill.
7. When putting the absorbent material on the spill always start from the edges and work inwards.
8. Oil absorbent granules will take time to soak up oil or fuel, allow 5-10 minutes before cleaning up.

23.4 STEP 3: Report the incident

Spill incidents must be reported using the Environmental Incident Form. In most cases it is important to contain the spill first; however, any spill that involves injury, a dangerous situation or escape of material into drains or open water must be reported immediately. The report must include:

- The source of the spill
- The material involved
- How far the spill has spread
- What action has been taken so far
- Contact EA/SEPA if it has reached drains or watercourses.

23.5 STEP 4: Clean up the spillage

- The spill must be cleaned up as directed by the Environmental Team.
- DO NOT WASH SPILLAGE AWAY INTO DRAIN
- Scrape absorbent material up
- Use the correct sacks, bins or skips for the disposal of absorbent material – follow disposal instructions properly (as hazardous waste).
- Label containers with contents and store in compound for disposal.

23.6 Pollutant Control Table

Pollutants						
Spill Material		Concrete/Cement	Paints	Oil	Silt	Detergent
	Spill on Ground Control Measures					
	Sand	✓	✓	✓		✓
	Straw Bales			✓	✓	
	Absorbent Granules			✓		
	Geotextile	✓		✓	✓	
	Pads, Rolls, Mats			✓	✓	
	Drain Seals	✓	✓	✓	✓	✓
	Earth Bunds	✓	✓	✓	✓	✓
	Spill In Water Control Methods					
	Straw Bales			✓	✓	
	Pads, Rolls, Mats			✓		
	Booms				✓	

Construction Environmental Management Plan Station Hill, Reading



23.7 Project Aspects and Impacts Register

Project Name: Station Hill			Start Date:		Dec 2019		Prepared By: Caroline Slevin					
Project Number: TBC			End Date (Client handover):		TBC		Date issued: 23/07/19					
Site Activity	Aspect (Causes of Impact)	Effect (Potential Impact)	Legislation (See note below)	Contractual Requirements (See note below)	Likelihood (See note below)	Severity (See note below)	GROSS IMPACT	Environmental Management Best Practices & Control Measures to minimise impact	Likelihood	Severity	NET IMPACT	Legislation Ref (LR-01)
Demolition	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours. Contractors could develop hearing problems.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0001	2	1	9	E39 - E42
Demolition	Air Emissions	Increased air pollution. Destruction of Ozone Layer	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0007	2	1	9	E1, E4 & E35
Piling	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours. Contractors could develop hearing problems.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0001	2	1	9	E39 - E42
Piling	Vibration	Disturbance of individuals in occupied buildings. Disturbance of neighbours.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0003	2	1	9	E40 - E42
Piling	Water Discharge	Water Contamination	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0003	2	1	9	E1, E6-E8, E10, E12, E31 & E43
Excavations	Hazardous Generation	Water Contamination Soil Contamination	3	3	2	1	9	EBP-01 & RAE1	2	1	9	E18 & E36
Construction Phase	Noise	Disturbance of individuals in occupied buildings. Disturbance of neighbours. Contractors could develop hearing problems.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0003	1	1	8	E39 - E42
Construction Phase	Vibration	Disturbance of individuals in occupied buildings. Disturbance of neighbours.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0003	1	1	8	E40 - E42
Construction Phase	Use of Chemicals	Water Contamination Soil Contamination	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0002	1	1	8	E34-E38
Construction phase.	Air Emissions	Increased air pollution. Destruction of Ozone Layer	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0007	1	1	8	E1, E4 & E35
Construction Phase	Waste Generation	Contamination issues when waste is disposed. Increase of the amount of waste to landfill Increase of cost of disposal of waste.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0001	1	1	8	E14-E20
Construction Phase	Hazardous Generation	Disposal of hazardous waste on landfill.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0001	1	1	8	E18 & E36
Construction Phase	Habitat Destruction	Depletion of living resources. Local damage to vegetation on access roads and site bases. Associated disruption of hydrology and impact on soil and surface invertebrates.	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0010	1	1	8	E29, E30, E32 & E33
Construction Phase	Spillage of Chemicals	Water Contamination Soil Contamination	3	3	2	1	9	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0002	1	1	8	E21, E34 & E36
Construction Phase	Energy Consumption	Depletion of natural resources (fossil fuels). Global Warming	1	1	1	1	4	BO-MID-EM-XX-PD-Z-0011 BO-MID-EM-XX-RA-Z-0007	1	1	4	E26, E44 & E45
Construction Phase	Water Consumption	Use of natural resources	1	1	1	2	5	BO-MID-EM-XX-PD-Z-0011	1	1	4	E9, E10 & E12