ENVIRONMENTAL MANAGEMENT PLAN

THE MANNINGS

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Sign off by Contracts Manager		
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1.0 PROJECT SCOPE

The scheme involves the demolition of the existing Mannings Estate which is a 4 storey residential block followed by the construction of a new 3 to six storey building with 74 new homes (17no for Social Rent and 57no for Shared Ownership) ranging from one to three bedroom dwellings, including district heating and associated plant, community amenity roof gardens, hard and soft landscaping and associate ancillary facilities, improved public realm areas, 27 dedicated parking spaces and 86 secure cycle stores.

This document is the Environmental Management Plan for Southern Housing Group (SGH) contract and sets out the framework within which the environmental aspects of the project will be managed. It identifies particular issues relevant to the works undertaken and contains a set of procedures for each issue.
Real operates an ISO certified Environmental Management System (EMS) comprising of Policy Statements, organisational details and company procedures, which provide arrangements to ensure compliance with applicable environmental requirements.
This Construction Environmental Management Plan (CEMP) and other project specific documents are complimentary to the company environmental procedures.

2.0 ENVIRONMENTAL POLICY

Real's latest Environmental Policy is located on the Real Management System and can be found in appendix 6.

3.0 PLANNING

3.1 Register of Environmental Aspects and Impacts

Environmental Aspects and Impacts for the project are identified in document 204.301.01 Aspects and Impacts Register (see appendix 8) — Construction prior to the start of works.

Real will actively evaluate and assess details of environmental assessments carried out from the client's representative and the pre-construction information, if none are provided we shall take account of information on specific project environmental risks.

The significance of an aspect will be determined through the assessment of key drivers including legal requirements; level of risk to the environment and level of risk to the business.

Where any residual risks are judged to be significant the project team, the Contracts Manager shall ensure that there are emergency plans in place that define any actions to be taken, and appoint the person responsible for doing so.

3.2 Environmental Legislation, Regulation and other Requirements

A register of environmental legislation is maintained on the RMS and is available to the project teams.

All works will be conducted in compliance with the requirements of applicable environmental law and shall pay particular regard to the Control of Pollution Act (COPA) 1974, the Environmental Protection Act 1990; the Water Resources Act 1991, the Waste (England and Wales) Regulations 2014 and the Environmental Act 1995. Real will also comply at all times with any other mandatory requirements such as those specified by relevant local planning, highways and environment health authorities, or the relevant statutory agency.

3.3 Objectives, Targets and Management Programmes

As part of the overall project Real will set objectives and targets employing environmental good practice to minimise the effects on the natural environment. Real aim to achieve these environmental objectives, inclusive of those on Waste, Energy, Noise, Dust, Vibration and Spillage, through commitment to:

- Compliance with the relevant legislation
- Establishing and implementing procedures to achieve those objectives
- On-going monitoring and review of progress
- Continuous improvement in Environmental performance

Objective/Target	How will this be achieved?
No oil spills No fuel spills No leakage of contaminants No environmental harm	Identify environmental receptors (e.g. watercourses, springs, drains, etc.) and protect where applicable Fuelling operations at designated fuelling points using drip trays/Plant nappies Bunded Generators Suitable spill kits and absorption materials available wherever risk present Minimal storage of fuels, oils etc.

	Preventative maintenance and machine checks before start of each shift Suitable Emergency response in place Weekly checks carried out on site by Real site management.
Safe removal of construction waste from site Reuse or recycle where possible Minimise dust	Use of Hazardous Waste Contractors for identified hazardous and/or contaminated waste Recycling for non-hazardous spoil Designated storage area while awaiting disposal Minimise dust by covering during disposal/transport
Minimise waste produced Safe removal of construction waste from site Achieve at least 96% reuse/recycle of non-contaminated waste All sites in clear/tidy conditions by end of each shift All waste stored in correct skips	Induction briefings to all staff Implement waste hierarchy Suitable Waste Skips at Site of Work Selection of appropriate site waste contractor to achieve recycling target Minimise dust by covering during disposal/transport Suppress dust by source using water hoses and vacuum Sub-contractors to adopt a 'clean as you go' policy which will be managed by Real site management.
Minimise exhaust emissions Minimise potential nuisance to members of the public and local residents, businesses	Induction briefings to all staff, manage deliveries to keep it to a minimum. Inspection and Monitoring on site No Idling, Policy for the project Machines/Plant switched off and keys removed when not in use Real traffic management plan in use.

Reduce energy consumed on site for lighting, fuel and electricity	Report energy use on monthly basis Use Eco-cabins when necessary Ensure all equipment switched off when not in use. Motion activated sensors to be fitted to site accommodation. Investigate energy saving solutions such as hybrid generators, LED lighting etc.

This Construction Environmental Management Plan will be briefed to relevant project management team personnel and subcontractors by the Contracts Manager. The objectives and targets will be highlighted as part of the briefing, through project induction and environmental toolbox talks, and will be monitored as part of the project progress meetings.

3.4 Management Structure and Responsibility

Project environmental responsibilities are detailed below:

Duty	Duty Holder
Overall Responsibility for Environmental Issues	Real Contracts Manager (CM)
Site Environment co-ordinator	Real Project Manager (PM)
Environmental Management Guidance and Advice	Real HSQE Advisor (HSQE)

Key project environmental activities:

Duty	Responsibility	
	Action	Review
Arrange for Project Specific EMP to be compiled prior to project start	PM	Client
Approve Project Specific EMP for issue & distribute	PM	HSQE
On-going review and update of EMP	PM	HSQE
Identify training needs for site personnel	PM	HSQE
Ensure induction training has been undertaken and environmental information communicated to all	PM	HSQE
Ensure environmental inspections/audits are carried out	HSQE	HSQE
Notify statutory reporting point and client of environmental incidents on site and of any Environment Agency activity on site	PM	HSQE
Identify environmental hazards on site	PM/HSQE	HSQE
Method statements , task briefing sheets and risk assessments to include specific environmental control measures as appropriate	PM	HSQE
Health, Safety and Environmental File	PM	HSQE

An organisation chart for this project is attached in appendix 3. General responsibilities are detailed as follows:

Contracts Manager

- *Responsible for the implementing, directing and co-ordinating the CEMP*
- *Liaise with, and co-ordinate Real project team*
- *Lead the periodic review of the environmental management plan*
- *Manage the collation of information for the health and safety file that is related to CEMP*
- *Manage the appointment of suitably trained and qualified staff*
- *Consider environmental aspects and Impacts during safety tours*
- *Chair project meetings that will include an agenda item of environmental issues*
- *Agree methodology for environmental issues*
- *Co-ordinate the planning of the works*
- *Prepare progress reports/reviews regarding environmental compliance on site*
- *Monitor the compliance of the contract with Real/Client environmental requirements*
- *Ensure that any environmental accidents, incidents and near misses are reported and investigated in line with Real procedures.*
- *Identify environmental aspects and impacts during survey activities*
- *Ensure controls for environmental aspects and impacts are detailed in method statements and task briefing sheets*
- *Identify environmental toolbox talks to be delivered ahead of relevant activities*
- *Manage the site(s), via Site Manager, in accordance with company/client environmental policies, relevant legislation and good practice.*

- *Ensure that site teams are competent to identify, assess and control environmental impacts of the project.*

Health, Safety, Quality and Environmental Advisor

- *Review the environmental plan, as well as providing guidance on content.*
- *Review and monitor compliance with the environmental plan.*
- *Offer ongoing guidance to the project team in relation to environmental issues.*
- *Carry out duties as specified in contract requirements for the environment.*
- *Provide information and advice service to all managers and contractors on environmental issues.*
- *Provide updates on any legislative changes.*

4.0 COMPETENCE, TRAINING AND AWARENESS

4.1 Induction Training

The Induction briefing will cover environmental issues. All persons receiving the induction briefing will be required to sign a register. A copy of the site rules and induction briefing will be available on the site notice board.

This CEMP will also be available on site and a copy issued to any subcontractors prior to commencement on site. The Contracts Manager shall ensure that their staff understands the requirements of new documentation in relation to their own duties. Any project specific environmental training identified will be subject to the company training and competency procedures.

4.2 Awareness

A site-specific environmental briefing will be carried out as determined by the environmental risk assessments by the Site Manager to all Real personnel, subcontractors and visitors, and will be recorded.

In addition to this plan being available to contract staff, specific information will be communicated through the following means:

- Briefings by managers/supervisors and when necessary representatives from other departments
- Alerts
- Environmental tool box talks
- Real bulletins

4.3 Tool Box Talks

Toolbox talks are given by the Project/Site Manager/Supervisor to company operatives on a regular basis, and are provided to sub-contractors to be given to their staff. These will cover environmental issues where these are relevant to the work in progress e.g. waste management, noise prevention, spillage prevention and other environmental subjects as described below.

4.4 Visitor Training

Visitors to site will be directed to the Site Manager/Supervisor and required to sign the visitors book on arrival and when leaving. Visitors will be accompanied by a Real representative at all times and be briefed on any relevant environmental issues i.e. noisy hours, listed buildings/contents.

5.0 COMMUNICATIONS

5.1 Internal Communication

Copies of the company environmental policy statement will be displayed on the site office notice boards.
All staff, including sub-contractors will be effectively briefed on their environmental responsibilities. This will be carried out during the induction session and will be supplemented using task specific method statements and task briefing sheets.

Everyone involved in the project is required to report any issues of environmental concern, to the site management team immediately when they become apparent.
Personnel shall be adequately briefed in terms of their environmental responsibilities to enable the requirements of this plan to be complied with.

Project Contacts

Name	Title	Company	Email	Telephone
Ben Finch	Contracts Manager	Real	[redacted]	
Ben Finch	Project Manager	Real	[redacted]	
Oteri Maxwell	HSQ&E Advisor	Real	[redacted]	

5.2 External Communication

During the duration of the project, external communications with members of the public, local authorities, landowners, residential and business premises owners may take place due to certain aspects and key elements of the project. Such communications will be carried out by representatives of Real as required in the form of newsletters and letter drops, subject to Client approval.
Any works that are likely to be carried out beside or close to residential or business premises will be carried out in such a way as to minimise any potential disruption to these owners.
Any environmental complaints that are made during the life of a project will be held on a complaints register.
All complaints will be dealt with in a systemic and professional manner until a satisfactory conclusion that suits all parties is agreed.
Environmental issues will also be discussed as part of the project and client progress meetings, and (where appropriate) other involved contractors/other parties.
All communication with third parties not associated with the contract must only be made by authorised company representatives.
Communication with parties involved with the contract (e.g. the Environment Agency) must be referred to the Contracts Manager.

Community Relations Representative

Real has appointed Ben Finch Project Manager to act as the community relations. Included below is a 24 hour, 7 day roster showing respective duty times.

All works and ancillary operations which are audible at the site boundary, or at such other places as may be agreed with the Local Planning Authority, shall be carried out only between the following hours:

Date	Time	Contact
Monday — Friday	7.30am — 6pm	**Ben Finch** Contracts Manager [redacted]
Saturdays No working Sundays or Public Holidays	9am — 1pm	**Ben Finch** [redacted] **OR** **Out of hours number** [redacted]

Construction deliveries to and removal of plant, equipment, machinery and waste from site must only take place within the permitted hours detailed above.

Mitigation measures as defined in BS 5528: Parts 1 and 2: 2009 Noise and Vibration Control on Construction and Open Site shall be used to minimise.

External Stakeholders

Each phase of works presents different issues and challenges which could have an adverse effect on the local community. The priority for each third party stakeholder will be to build and maintain trust, creating a positive perception of the project and minimise any negative publicity for the project.

Procedures for maintaining good public relations including compliant management, public consultation and liaison.

If required, arrangements will be made with the Council's Public Protection Team for liaison meetings.

Real have compiled a detailed list of third party stakeholders, as shown in the table below, explaining proposed forms of communication and how we can achieve them.

Stakeholder	Description	Key Message	Communication Channel	Responsibility
Environment Agency	Responsibilities that relate to the protection and enhancement of the environment in England	Confirmation of Scope and Delivery — *Project objectives, benefits, scope and timescale.*	Consultation meetings, direct communication via email/telephone/meetings	Real/Client
Statutory Utility Companies	Various companies and agencies with legal rights to carry out certain development and high works within the site boundary.	Project objectives, benefits, scope of project, timescales and consultation	Consultation meetings, direct communication via email/telephone/meetings	Real/Client
Local Council	A legislative body acting on behalf of the people who live in the local area.	Project objectives, benefits, scope of project, timescales and consultation	Consultation meetings, direct communication via email/telephone/meetings	Real/Client
Local Residents and Businesses	Residents and Businesses within a 300m radius of site / office / yard	Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client
Local Schools		Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client
Local Hotels		Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client
Local Charities		Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client

Health Facilities		Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client
Places of Worship		Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client
		Project objectives, benefits, scope of project, timescales and consultation	Posters, letters, visits, media announcements/articles/e-newsletters, website updates, drop-in exhibitions and community events	Real/Client

6.0 DOCUMENTATION

The following is a list of company procedures that will be utilised as part of this project:

- 204.301 — Aspects and Impacts Procedure
- 204.302 — Contaminated Land Procedure
- 204.303 — Ecology and Archaeology Procedure
- 204.304 — Emergency Preparedness and Pollution Prevention Procedure
- 204.305 — Nuisance Procedure
- 204.306 — Sustainable Procurement Procedure
- 204.307 — Waste Procedure
- 204.400 — CSR Procedure
- 204.401 — Electricity CO2 emissions Procedure
- 204.402 — Amount of Waste Recycled
- Smartwaste (Online Environmental Reporting System) — Site Waste Management Plan

The distribution of these documents is controlled through the Real Management System (RMS) on the Real intranet.

7.0 OPERATIONAL CONTROL

This section details arrangements to be implemented under relevant contractual agreements, consents and permits for this project. The main operational categories where consents and exemptions apply to the project are:

- Notifications, licences and consents issued by the Local Authority
- Traffic management and compliance requirements
- Project Access and Egress
- Parking arrangements and restrictions on delivery times
- Positioning of site accommodation, welfare and material storage
- Emergency arrangements

7.1 Noise and Vibration Management

Real and all associated Sub-Contractors will use noise mitigation measures at this project, in accordance with BS 5228 parts 1 & 2, to ensure the minimum adverse impact on the residential dwellings in Shoreham-by-Sea on Ham Road/Surry Street and the surrounding area around areas of work. These measures will include considerate positioning of plant and the use of silencers on generators where practicable.

Best Practicable Means will be used to minimise Noise and Vibration from the works including;

- Stationary plant such as temporary generators will be located as far as practicably away from the nearest sensitive receptor;
- Plant will be used in accordance with the manufacturers' recommendations;
- Plant such as mobile cranes, which may be used intermittently, will be shut down between work periods or throttled down to a minimum;
- Acoustic covers to engines will be kept closed when engines are in use;
- Appropriate screens or enclosures will be provided where required;
- Breaking and other noisy operations will be monitored to ensure compliance with S61 consent conditions.
- Site personnel will be instructed in environmental matters and Best Practicable Means to reduce noise and vibration.
- Sub-Contractors will be informed during the site induction regarding the surrounding environment.
- Loading of material into vehicles within designated areas only
- Sensitive location of drop zones and loading areas
- All deliveries to be scheduled to occur during daytime hours only and engines to be switched off when waiting
- All plant to comply with relevant national or international standards, directives and recommendations.

Real aim to meet at regular intervals with the client and Local Authority Environmental Health Officers to discuss works progress and any noise or dust nuisance. Whenever it is anticipated that noise and vibration levels resulting from work activities will be excessive, notification to these parties, or an application for Section 61 Agreement may be required.

The environmental monitoring to be implemented at this project will be as described in the Contract HSQE Plan. It has been assessed that the following monitoring arrangement shall suffice the scope of works for The Mannings.

- Real time monitoring for Noise and Vibration.
- Attended portable monitoring for noise and vibrations.
- External or internal monitoring resources.

Real actively communicates with neighbours in writing, in particular to house-holds, regarding the work taking place when noise levels are expected to be significant, as it may be the case on this project. A copy of letters will be sent to the appropriate Local Authority and Environmental Health Officers and will be available for inspection. .

A baseline monitoring for (Noise) will be carried out on the surrounding site elevations on (dates to be confirmed), for the duration of the project Further monitoring will commence as agreed and instructed by Client / Real / Subcontractor.

7.2 Air Quality and Dust

Real will take all practicable steps to minimise the risk of air pollution. These steps include:

Fine water spray techniques will be used to keep the dust to a minimum on access roads as and when required. This will be a particular requirement during the demolition phase of the works where water jets to supress the dust will be a requirement. The wheels of vehicles leaving site will be cleaned using a high pressure jet wash as they leave onto Ham Road. We will also organise road sweeping should the roads around the site be dirtied by site vehicles inadequately cleaned by the wheel wash which is to be located by Gate 1 and controlled by the gatemen to ensure that no vehicle leave the site unclean.

The following mitigation measures will be considered to minimise dust and other emissions from site activities and disruption or nuisance to neighbouring occupiers:

- Maintaining solid 2.4m high hoardings.
- Spraying water at work faces, loading operations and site access roads;
- Dampening of exposed soil and stockpiles if necessary;
- The location of stockpiles of brick, concrete, soil and other materials away from dusts sensitive properties, taking into account prevailing wind, if necessary;
- Regular inspection and cleaning of local highways and site boundaries for dust deposits;
- Loading of material into lorries within designated areas;
- Sheeting of lorries leaving site carrying loose deconstruction material;
- No burning of any materials on site;
- All site personnel trained in best practice for dust control by regular Environmental toolbox talks.
- Real/Sub-contractors to only use plant and vehicles that are in good repair and conform to the manufacturer or legislative/British Standard emission standards. Plant maintenance and defect reports shall be held on site in designated file. Wherever possible, plant shall not be left running for long periods when not directly in use. Where appropriate electrically powered machinery and plant shall be used instead of petrol or diesel powered.
- Monitoring site perimeter.
- No engine idling of road vehicles, small plant or generators.
- Plant and equipment is serviced regularly to ensure good working order, all plant to comply with manufacturers' recommendations. DPF filters are fitted where applicable.
- Delivery of materials and other equipment kept to a minimum.

- Dust nuisance occurs more readily during prolonged dry weather and especially in strong winds. The site management will ensure that during such weather conditions vigilance is maintained and plans are in place for dealing with these situations.

Real will take all practicable steps to minimise the risk of air pollution.

The storage of materials and plant will be within the site boundary only and offloading and storage on the footpaths and road will not be permitted. Due to the issues of materials since the Covid-19 outbreak we will look to store materials off site in storage compounds. This also provides additional benefits on ensuring that the materials are delivered to site exactly when they are required.

Visitors and site staff will be encouraged to use public transport as there will be no site parking. If this is not feasible they will then be encouraged to use designated car parks in the area and not to park in resident's bays or illegally surrounding the site. If this is being ignored and vehicles are being parked illegally or disrupting the residents in any way we would encourage the local parking enforcement officers and support them in any way to discourage and prevent this occurring.

Vehicle routing and offloading procedures can be found in the site logistics plan (Appendix 1) and on the TMP (Appendix 7). The unloading of materials will be supervised by trained and competent persons only (i.e banksman, traffic marshals and slingers) and the unloading of vehicles will only occur on site within the site compound via the crane or forklift.

Schedule of Proposed Mechanical Plant

Plant	Stage		
	Substructure	Superstructure	Fit-out
Piling rig	✓		
Tracked / wheeled 360 degree excavators	✓		
Breakers	✓		
Crushers	✓		
Dumpers	✓		
Tower & Mobile Craneage	✓	✓	✓
Muck away trucks	✓		
Air Compressors	✓		
Diamond cutting tools / saws	✓	✓	
Power Tools	✓	✓	✓
Hand / power tools	✓	✓	✓
Wheel Washing Plant	✓	✓	
Scaffold	✓	✓	✓
Delivery trucks	✓	✓	✓
Skips and Skip trucks	✓	✓	✓
Forklift trucks		✓	✓

Dust Monitoring will be carried out where required to BS 6069.
Vibration Monitoring will be carried out where required to BS 4142.
Noise Monitoring will be carried out where required to BS 5228.

The following is a list of many of the vehicles that will need to gain access to the site during the demolition and construction process.

- 4 wheel self unload flat back lorries.
- 6 wheel self unload flat back lorries.
- 8 wheel tipper trucks.
- Articulated lorry with low loader trailer.
- 4 wheel tanker delivering diesel.
- 4 wheel 3 tonne van.
- 6 wheel all terrain mobile crane.
- 8 wheel all terrain mobile crane.
- 8 wheel ready mix concrete lorries

Transport Movements

Deliveries will access site via Ham Road as per TMP.

Over the 85 weeks a total of 3,120 vehicles are expected, giving an average of 40 per week, 8 per day or 1 per hour assuming 8 hours available for deliveries per day. All loading, unloading of plant, materials and waste will occur within the site compound.

Following the demolition of the existing Mannings building the following construction vehicle deliveries will be predicted:

Demo and asbestos removal

- High reach and 10-15 daily muck away vehicles for 6 weeks

Construction Week 1 Site Strip and Reduce Dig

- 7 x 4 axle / 8 wheel tipper trucks per day for 5 days coming to site taking away sub soil. (Week 1).

Main Construction Works

Establish Site offices and Welfare Accommodation.

- 12 x 4 axle / 8 wheel self-unload flat back trucks and 1 x 2 axle / 4 wheel all terrain mobile crane. (Week 3).

Building Piling, Drainage and Ground Works.

Weeks 1 to Week 13

- 3 x articulated lorries and trailers bringing to site piling rig and associated piling plant and materials. (Commence Week 2).
- For 3 weeks x 5 x 4 axle / 8 wheel ready mix concrete lorries (Week 2).
- 3 x articulated lorries and trailers bringing to site ground worker excavators / dumpers and associated plant. (Week 2.)
- For 4 weeks x 2 x 4 axle / 8 wheel ready mix concrete lorries. (Week 4).
- For 2 days x 6 x 4 axle / 8 wheel tipper trucks removing pile spoil from site. (Week 4).
- For 1 day x 3 x 4 axle / 8 wheel self-unload flat back lorries delivering drainage goods etc. (Week 5).
- For 5 days x 5 x 4 axle / 8 wheel tipper trucks removing piling spoil from site. (Week 5).
- For 3 days x 1 x 4 axle / 8 wheel all terrain mobile crane for tower crane erection (Week 8).
- For 3 days x 2 x articulated lorries and trailers bringing tower crane to site for erection. (Week 8).
- For 10 weeks x 1 x 3 axle / 6 wheel tanker delivering plant fuel. (Week 1).
- For 3 days x 1 x 4 axle / 8 wheel self-unload flat back lorry bringing ground worker formwork to site. (Week 2).
- For 2 days x 2 x 3 axle / 6 wheel self-unload flat back lorries delivering ground worker materials. (Week 2).
- For 4 weeks x 2 x 4 axle / 8 wheel flat back lorries delivering steel reinforcement. (Week 3)
- For 12 weeks x 10 x 4 axle / 8 wheel ready mix concrete lorries. (Week 5)
- For 12 weeks x 20 x 4 axle / 8 wheel tipper trucks removing pile and ground beam arisings. (Week 3)
- For 5 weeks x 2 x 4 axle / 8 wheel lorries delivering ground worker steel reinforcement. (Week 3)
- For 2 days x 2 x 3 axle / 6 wheel self-unload lorries delivering ground worker materials. (Week 3)
- For 3 weeks x 3 x 4 axle / 8 wheel tipper trucks delivering building aggregates. (Week 4)
- For 1 day x 2 x 2 axle / 4 wheel self-unload flat back lorries delivering sundry building materials. (Week 4)
- For 1 day x 3 x articulated lorries and trailers taking from site piling rig and plant. (Week 6).
- For 1 day x 3 articulated lorries taking ground worker plant and materials from site. (Week 18).
- For 12 weeks x 1 x 2 axle / 4 wheel road sweeper. (Week 2).

Building Concrete Frame, Envelope and Roofing Works.

Week 15 to Week 40

- For 2 days per week x 1 x 4 axle / 8 wheel all terrain mobile crane to erect the Block B concrete frame 12 weeks.
- For 24 weeks x 20 4 axle / 8 wheel ready mix concrete lorries to erect Block A concrete frame 25 weeks.

Week 40 to Week 85 Building Internals and Finishes and External Works.

- For 20 weeks x 3 x 3 axle / 6 wheel flat back self-unload lorries delivering metal studwork, plasterboard and plaster. (Week 41).
- For 20 weeks x 3 x 3 axle / 6 wheel flat back self-unload lorries delivering joinery, sanitary ware, kitchen units, heating materials. (Week 52).
- For 20 weeks x 2 x 2 axle / 4 wheel lorries delivering decorating, wall tiles, flooring, ironmongery and electrical materials. (Week 52).
- For 36 weeks x 3 x 2 axle / 4 wheel skip lorries. (Week 38).
- For 24 weeks x 2 x 3 axle / 6 wheel self-unload flat back lorries delivering ground worker and landscaper external works materials. (Week 52).
- For 18 weeks x 1 x 4 axle / 8 wheel large tipper trucks. (Week 52).
- For 2 days x 2 x 4 axle / 8 wheel all terrain mobile crane to take down tower crane. (Week 64).

- For 2 days x 2 x 3 articulated lorries with trailers for taking away from site tower crane components. (Week 64).
- For 6 weeks x 2 x 2 axle / 4 wheel and 3 axle / 6 wheel lorries collecting plant and surplus materials from site. (Week 85).
- For 1 day x 2 axle / 4 wheel lorry collect site perimeter hoarding. (Week 85).

7.3 Interference with Drains and Watercourses

Works will be arranged in such a way to ensure that any interference with live drains or watercourses is prevented or managed under the relevant consent at this project. Trade Effluent Consent or Discharge licences will be obtained from the Environment Agency if necessary. In the event of working on or near a drain, preventative and protective measures will be put in place to ensure no damage is caused and continual flow is not interrupted. This may include installation of a diversionary route whilst works are carried out. All such drains etc. will be put back as they were found once site works are complete or a permanent alternative is installed due to our work operations.

Any unknown live drains discovered during work operations will be protected in the same way and put back 'like for like' upon completion of the works.

7.4 Hydrology and Aquatic Courses

Real will not knowingly lower the quality of any surface or ground water and the company shall comply with all relevant environmental legislation associated with the scope of works.

It is also not envisaged that 'discharges' into controlled waters will be carried out. Should consents be required, details for discharging into controlled waters (The Water Resources Act 1991 as principally amended by the Water Act 2003 — COPA 1974) and/or discharge to sewers (Water Industry Act 1991) will be maintained.

Substances (fuels, oils, and chemicals etc.) will generally be stored at the main depot in a secured 'bunded' facility. Storage of such materials on site only to be done so in accordance with the COSHH assessment, and will be kept to a minimum.

7.5 Archaeology

In the event of any discovery of archaeological remains during the life of the contract Real will cease works immediately and directly inform the client appointed Archaeologist. A watching brief has been arranged by Real for the duration of the demolition and foundation works.

Where it is known that the presence of archaeological remains may exist on site Real shall ensure all the correct permissions and consents are in place before allowing work to commence.

7.6 Ecology

Prior to works commencing an ecologist will undertake a survey to check the work site for nesting birds, protected species, invasive species, trees and any other ecological features that may require mitigation. A second bat roosting survey has been carried out by the client and no Bats were found on the site.

Real will comply with statutory requirements and clients instructions in respect of the preservation of nature conservation areas and protected species. Any disturbance to such areas or species will be minimised. All appropriate licences or consents will be obtained prior to commencing works.

In the event any ecological mitigation is required, details will be submitted in the form of a method statement to the Contracts Manager for acceptance prior to implementation.
In the event of any unanticipated ecological discoveries, including nesting birds Real will cease works immediately and inform the Contracts Manager. Works will not continue until further instruction from the Contracts Manager has been obtained.

7.7 Site Boundaries

Provision of a 2.4m high hoarding & Heras will secure the site and segregate members of the public from site activities. This will be agreed with the Client / Local Authority along with any images and displays about the images of the development. No images with the acceptation of Site Contact details and REAL Ltd advertising will be in place until agreements have been made with the Client and the Local Authority.

7.8 Lighting

Night time working is not included within the scope of the contract, consideration to local residents and businesses will be given when positioning and directing lighting during winter working days. Lighting shall be suitable and sufficient whilst preventing nuisance to local people, site vehicle operations, or other transportation. Local authority guidance shall be sought where artificial lighting may be required.

7.9 Energy

Real is compliant with ESOS and it is our goal to manage and reduce the Energy consumption from our operations. Energy saving opportunities will be identified and implemented throughout the project where practicable, for example the use of LED lighting, renewable energy sources and hybrid generators. It is the responsibility of the site team to ensure the monthly reporting of site energy consumption to Smartwaste.
Real shall ensure all lighting, heating and electrical equipment is switched off when not in use, unnecessary vehicle movements and journeys are avoided, the appropriate plant for the task is used, and the efficient operation of plant/vehicles by minimising Idling time and using appropriate power.

8.0 SITE WASTE MANAGEMENT PLAN

8.1 Waste Management

A Site Waste Management Plan (SWMP) shall be produced using Smartwaste. This will be in line with BRE requirements, client/ company procedures and Smartwaste online management tool to identify and plan for the following:

- The waste streams, EWC category, and quantities (in tonnes) that will be generated by the works;
- Waste Hierarchy as stated on Waste (England and Wales) Regulation 2011
- The proposed method of storage, handling and transportation of waste;
- The means of disposal and the relevant consents and licensing conditions in compliance with statutory requirements;
- The reporting and monitoring procedures.

All redundant materials will be disposed of via an appropriately licensed waste operators and all waste transfer notes will be maintained on site or at a suitable office location and will be available for inspection at all times.

A strategy will be adopted to ensure that any surplus material will be managed so far as is reasonably practicable to maximise the environmental and development benefits from surplus material.

A general waste skip will always be provided in the site compound. Additional skips for individual waste streams will also be provided to match current work activities. These skips will include:

- Wood
- Concrete
- Metals

8.2 Waste Minimisation

Real is aware of its obligations under the Environmental Protection Act 1990 and Hazardous Waste (England & Wales) Regulations 2005, and will comply with these regulations while actively looking at waste reduction through implementing "Waste Quality Protocols, WRAP Protocol, reusing on site, reusing off-site, re-cycling and using alternatives disposal means.

The works shall be carried out in such a way that, as far as is reasonably practicable, the amount of spoil and waste to be disposed of is minimised.

The waste streams have been reviewed to identify:

- How the quantity of waste can be eliminated/minimised
- Estimated quantity of waste produced (tonnes)
- How waste should be stored/monitored

The waste hierarchy will be applied throughout the duration of the project.

9.0 EMERGENCY PREPAREDNESS AND RESPONSE

The following Emergency Contract Numbers will be utilised for all works associated with this plan:

Name	Position	Contact Number
On Call Manager — Ben Finch	Real Contracts Manager	[redacted]
Oteri Maxwell	Real HSQE Advisor	
Environment Agency	Emergency Hotline	
CSG – Environmental Emergency response Service	Emergency Hotline	

Emergency Procedures

Real will investigate all environmental incidents at the earliest opportunity in order to identify the basic causes. Subcontractors will report any environmental incidents immediately to the Real Contracts Manager. Real is committed to ensuring the protection of the environment and in particular the protection of watercourses from accidental leakage of oil/diesel/brake fluid/petrol from tracked machines and road vehicles.

In the event of oil or any other spillage the following action will be taken:

Immediately advise your Supervisor or if out of hours the On Call Manager

- The exact location of the spillage
- The substance involved in the spillage
- An estimate of the quantity involved
- Details of the vehicle, plant involved
- Whether any watercourses, protected sites and/or sewers are, or are likely to be, affected

Details of how to respond to these incidents are detailed in the Emergency Preparedness and pollution prevention Procedure. Spill kits will be available at designated areas around site.

Additionally Real will:

- Make every effort to contain the spillage with the use of spill kits or other means if available.
- Make suitable arrangements to reduce the risk of spillage at re-fuelling points e.g. drip trays, 'bunded' tanks.
- Ensure Fire Extinguishers, as applicable, will be available to reduce the risk of fire. .
- If appropriate, the incident shall be reported to the Environment Agency. This will be done within 12 hours of the incident occurring.

10.0 CHECKING

10.1 Monitoring and Measurement

This Construction Environmental Plan is planned to be reviewed on a maximum six monthly basis during the contract to reflect changes in statutory legislation or policies but can be amended at any time to reflect changes in the legislation, typing errors, additions, omissions and lessons learned in the event of an incident.
Typical topics that are monitored and reviewed are:

- Compliance with relevant Waste Legislation.
- Interfaces with Interested/Outside Parties.
- Compliance with all relevant procedures and processes.
- Alignment of objectives with those of client and any policy changes.

Outcomes of reviews will be recorded. Where the document text is revised, the plan will require Real authorisation and acceptance.

10.2 Reporting

The site will produce and communicate regular Monthly Environmental Reports which records the following Environmental Performance Indicators:

- Types and quantities of waste produced and recycled/re-used on/off site or removed from site
- Hazardous waste
- Diesel, gas, electricity, LPG and water usage on site
- CO2 emissions arising from site operations, vehicle movements and other site activities
- FSC certified timber usage
- Non-conformities from audits

Reports will be submitted in line with client and project requirements.
To ensure these records are robust and system based Real will be utilising the use of online Smartwaste reporting software calculate and record CO2 emissions.
Incident reports may be generated through various means such as site inspections, project audits as well as the customer or public complaints.

10.3 Evaluation of compliance

Regular monitoring will take place by the HSQE team during the life of the project, accompanied by the Contracts Manager to ensure that auditing and checking plan for this contract is implemented. In addition the Health, Safety, Quality and Environment Advisors will carry out site inspections bi-weekly which will be documented and made available to the Contracts Manager.
Examples of topics that will be monitored and reviewed are:

- Compliance with waste legislation (storage facilities, transfer notes, SWMP, etc.).
- Management of interface with interested parties
- Compliance with Real working procedures.
- Compliance with all relevant environmental legislation.

In addition to the above evaluation of compliance, the site will be registered with the Considerate Constructors Scheme.

10.4 Control of Records

All records pertaining to the implementation of this EMP shall be included within the Health and Safety File. The following records are retained as indicated and are available for audit purposes:

Record	Responsible Person
Complaints	Project Manager
Consents/Permits etc.	Project Manager
Supplier Information etc.	Procurement Manager
Non-compliance and follow ups	Project Manager/ HSQE Department
Accidents and Incidents follow up	Project Manager/ HSQE Department
Training	R&D/HSQ&E Department
Environmental Assessments	Project Manager/ HSQE Department
Waste Disposal Records	Project Manager
Site Waste Management Plan	Project Manager

10.5 Internal Audit

The HSQE team will carry out internal audits in order to establish compliance with all the pertinent requirements. These may be supplemented by:

- Audits carried out by the client
- Audits of sub-contractors
- Third party or regulatory authority audits of ourselves or our subcontractors including those carried out for quality system certification purposes

Real has established an internal audit programme as part of the Management System. Where appropriate, the results of these audits shall be used to correct and prevent recurrence of deficiencies, which affect the Project.

Audits will be carried out in accordance with EMS ISO 14001: 2015.

11.0 MANAGEMENT REVIEW

The project team will periodically review and continually improve its environmental management system, with the objective of improving its overall environmental performance.

During the CEMP review, the project team shall conduct a review of the project's environmental management system and evaluate the system's continuing suitability, adequacy and effectiveness. This review will cover the environmental aspects of activities that are within the scope of the environmental management system. This review may include:

- Results of internal audits and evaluations of compliance with applicable legal and other requirements;
- Communication from external interested parties, including complaints,
- Status of corrective and preventive actions,
- Changing circumstances, including results of the evaluation of environmental aspects from planned or new developments,
- Changes in applicable statutory legislation, procedures and other requirements.
- Lessons learned from emergency situations and incidents,

Outputs from the review of the environmental management system shall include decisions on the system's suitability, adequacy and effectiveness and the identification of improvement priorities.

Continual improvement is a key attribute of an effective environmental management on site. This is accomplished through the achievement of environmental objectives and targets and the overall enhancement of the environmental management on site.

Where opportunities for improvement are identified, they will be evaluated to determine what actions should be taken. The actions for improvement will be planned, and changes to the environmental management plan implemented in accordance with those plans.

12.0 REFERENCES

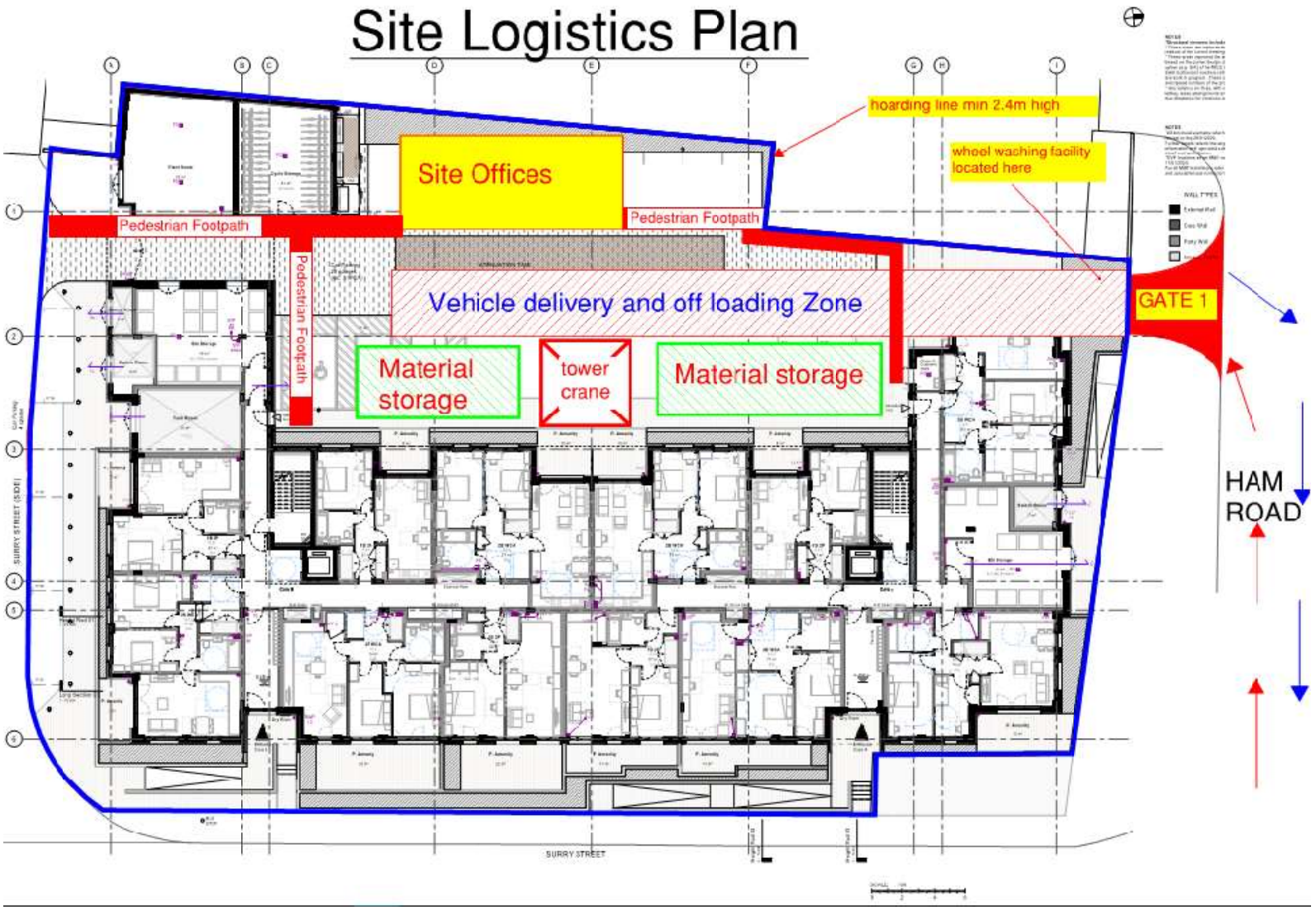
BS EN ISO 14001: 2015 Environmental Management Systems

Guidance on relevant aspects of environmental management is available from Real's Environmental Guidance Notes. Please refer to the RMS for a full list of guidance notes available.

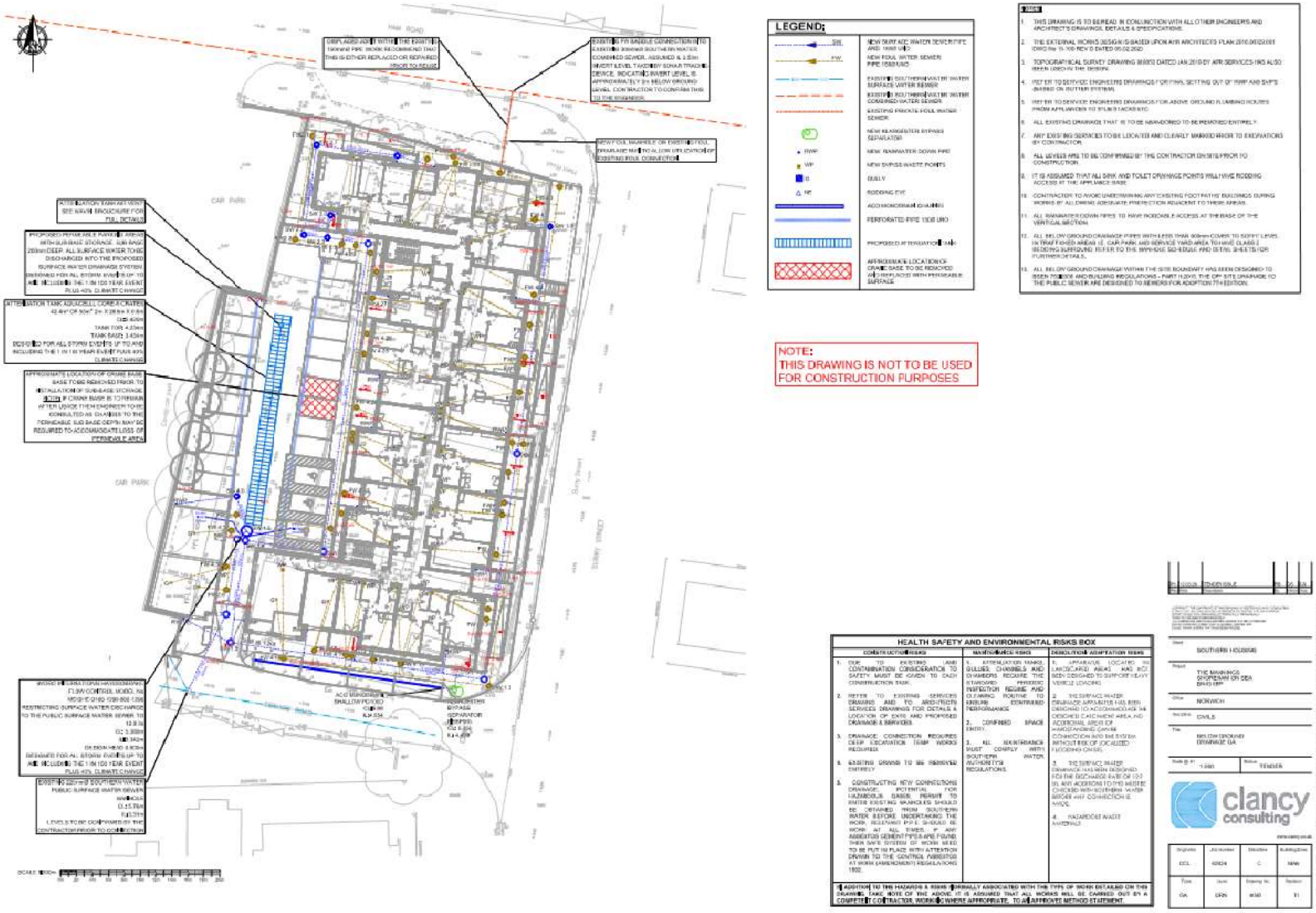
The Environment Agency does not provide 'good practice' guidance. Useful guidance is available on the UK government service and information website GOV.UK:

https://www.gov.uk/topic/environmental-management

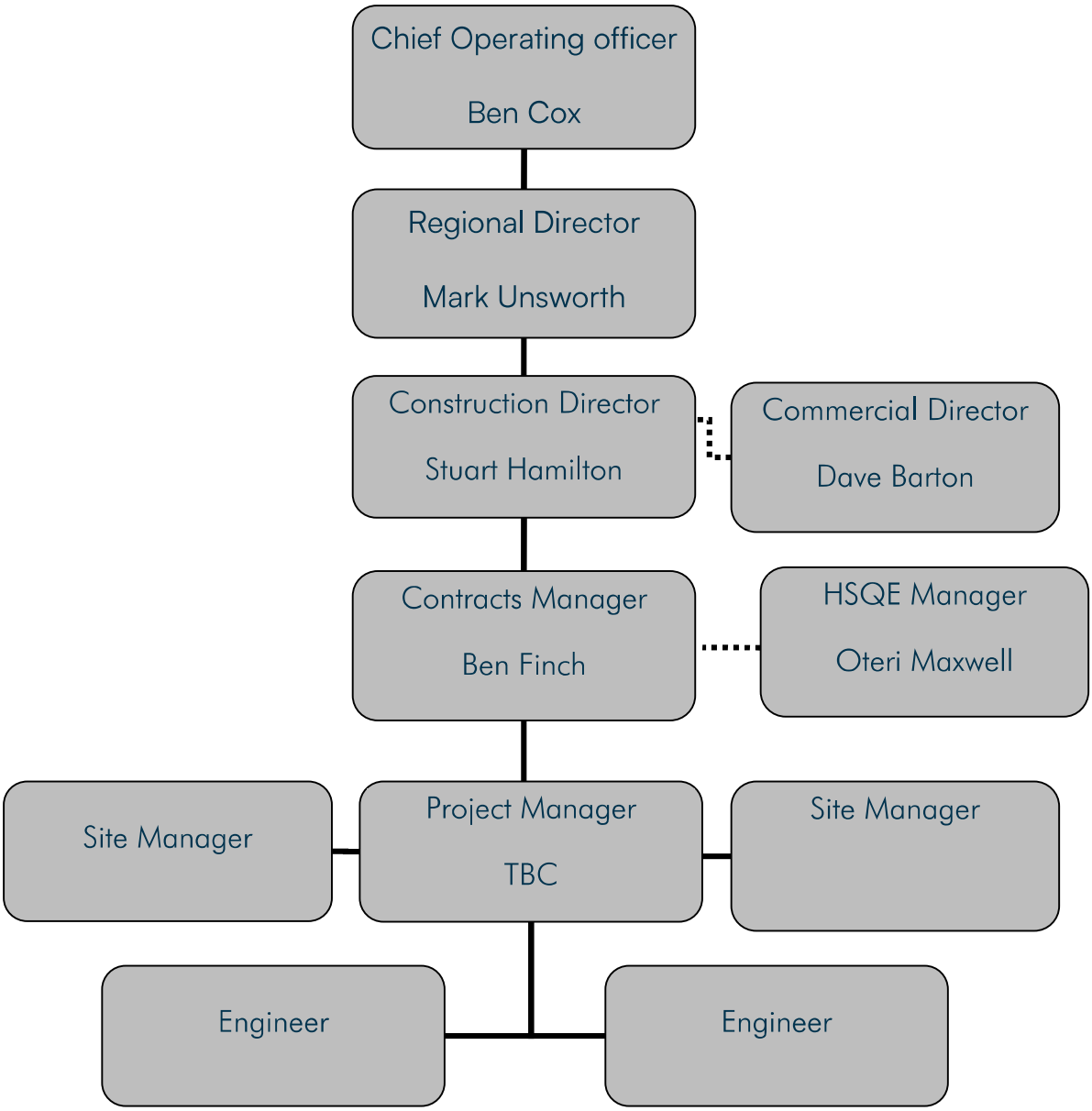
APPENDIX 1: Site Plan



APPENDIX 2: Site Drainage Plan



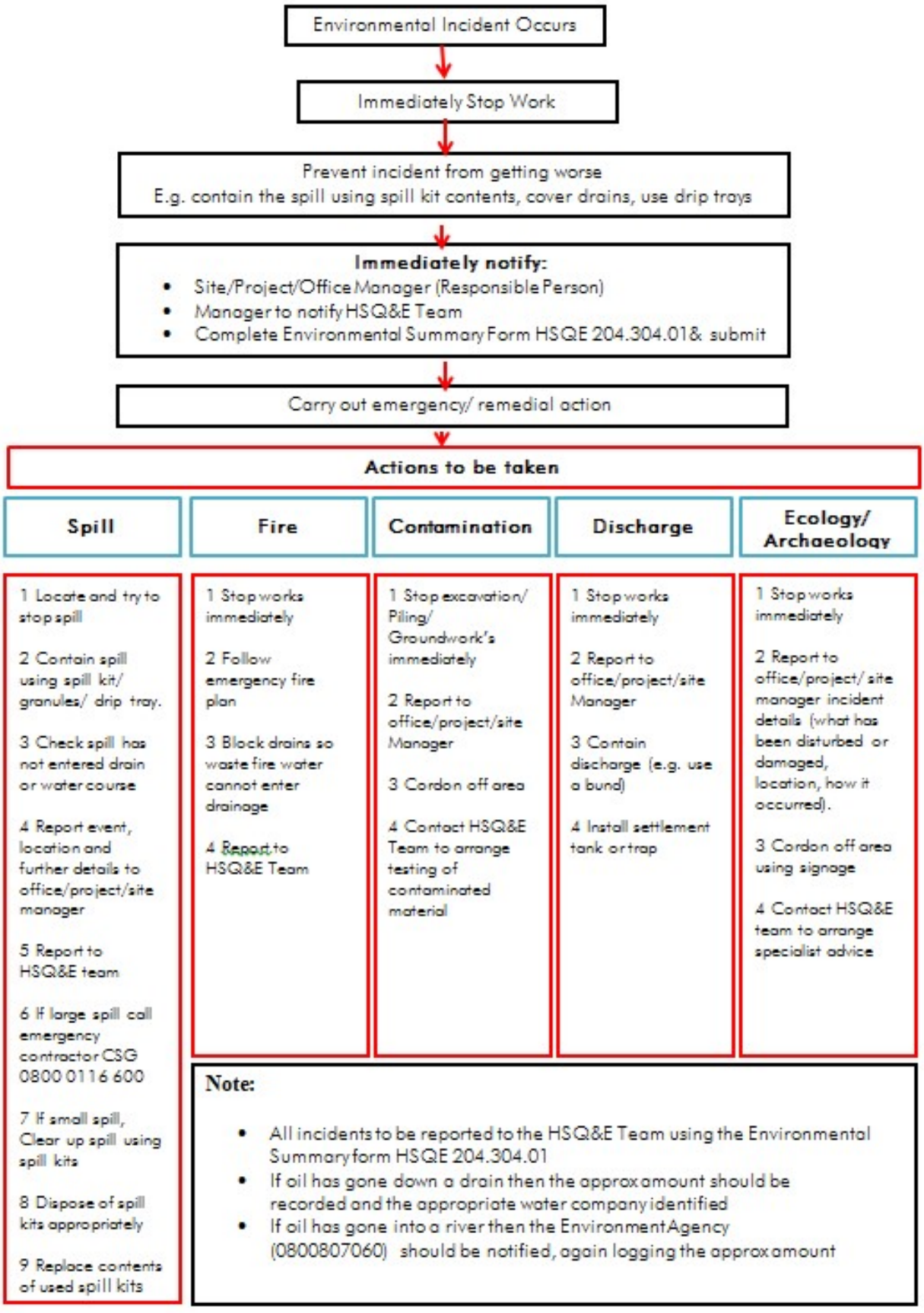
APPENDIX 3: Site Management Organisation



APPENDIX 4: UK Environmental Regulators

Regulator	Responsibilities	Contact number	Website
Environment Agency England and Wales	Discharges to land and controlled water, waste, effluent discharges, abstraction licences some nature conservation functions, ground contamination, enforcing environmental legislation	[redacted]	
Department of Environment Food and Rural Affairs (Defra)	Policy maker for all aspects of the environment, rural matters, farming and food production at national level	[redacted]	
Local authority	Noise, air quality, traffic, the planning process and contaminated land. Some powers under waste legislation to stop, search waste carriers and confiscate vehicles	[redacted]	

APPENDIX 5: Environmental Incident Response Procedure



APPENDIX 6: Environmental Policy

Real

Environmental Policy
March 2021

Background

At Real we recognise that our operations can potentially have an impact on the local, regional and global environment. We are committed to minimising this impact and to making environmental enhancements where possible. We are also aware that at times the environment can impact upon our business operations. This policy covers all of Real's activities and relates to both internal and external operations including designers, subcontractors and suppliers, who we support to fulfil the requirements. The policy is communicated to all those working for Real and those working on behalf of Real to achieve continuous improvement in our environmental management and ensure sustainable development.

Policy

We are committed to operating every aspect of our business in compliance with all relevant environmental legislation, guidance, approved codes of practice, and in line with our comprehensive Environmental Management System as a minimum standard. Environmental management will focus on:

- Waste minimisation (implementation of the waste hierarchy) and resource management (life cycle analysis)
- Sustainable procurement
- Energy management (reducing carbon footprint)
- Ecology and biodiversity
- Prevention of Nuisance (dust, noise and odour etc.)
- Water management
- Training (to raise environmental awareness)

We aim to:

- Continually improve as a business in these areas;
- Periodically review the effectiveness of the Environmental Management System, to ensure continual improvement;
- Operate all activities in an environmentally responsible manner and identify and manage positive and negative environmental risk within our projects and operations;
- Fully comply with all applicable environmental legislation, and associated codes of practice, guidance and policies;
- Ensure that we set targets of improvement and
- measure our performance against these targets;
- Review these objectives at our annual Management Review of the HSQE systems.

Governance

All policies within the company are approved by the Chief Executive Officer. Each policy is reviewed at least once annually to ensure that we respond to clients, business strategy, legislation and any standards or codes of practice determined by the market.

Oversight of the Environmental Policy is the responsibility of the Chief Executive Officer.

A copy of this Environmental Policy will be made available upon request to any interested parties.

Signed on behalf of Real

Signature(s) removed for security reasons;
Signed copies available on request
Paul Nicholls
Chief Executive Officer

Dated: March 2021

Rev: 01

APPENDIX 7: Traffic Management Plan

The Mannings-

DUE TO COVID-19 DRIVERS TO REMAIN IN VEHICLE WHENEVER POSSIBLE. REMAIN 2M FROM TRAFFIC MARSHALS AND GATEMEN

TRAFFIC MANAGEMENT PLAN (TMP) Rev 01 21-07-2021 (Reviewed 21/07/2021)

The Mannings – Ham Road, Shoreham-by-Sea

Project Working Times:
7.30am – 5:30pm Monday to Friday
08.00am – 1.00pm Saturday
Saturday working only when agreed / arranged with Real site management.

Restricted Delivery Times
07:30am – 4.30pm Monday to Friday

08.00am - 12.30pm Saturday
Saturday deliveries only when agreed / arranged with Real site management.

Prior to Arrival:
All delivery drivers to call the head traffic marshal 15 minutes prior to arrival to check in.

Follow directions as detailed on TMP.
DRIVERS WILL BE REJECTED OTHERWISE.

Aerial View - Vehicle routes into site



On Arrival:
All deliveries are to be directed to Gates 1 by head traffic marshal and details recorded on the project delivery register. Drivers without a copy of the TMP will be turned away

Speed Limit:
A speed limit of 5mph will apply to the entire Project and project entry.

Contact:
Head traffic marshal – add phone no

ALL DRIVERS MUST HAVE RECEIVED A COPY OF THIS TMP BEFORE ARRIVAL TO THE PROJECT

HSQE 204.122.06/Rev A

Project Rules Regarding Deliveries

All deliveries should approach site from the A259 Brighton Road. From a Westerly direction vehicles will turn right into Eastern Av and then left into Ham Road. Vehicles approaching from the Ease will turn left into Eastern Av and again left into Ham Road.

Arrivals to site must be from Ham Road and turn left into site VIA GATE 1. On leaving site, you will only be permitted to turn Right back into Ham road and back via the A259.

For Gate 2 deliveries communication with Head Traffic Marshal must be followed prior to arrival but this gate is only to be used under exceptional circumstances and only smaller vehicles permitted due to the road size. Vehicles will also require a banksman when using Surry Street

All gate 2 delivery vehicles must reverse in & drive out, under STRICT direction of the traffic team. NO EXCEPTIONS.

All reversing commercial vehicles must have an audible warning device, if not available a banksman must oversee all vehicle movements.

All deliveries to contact the head TM a minimum of 15mins prior to arrival. (add phone number)

No Parking across the Project entrance, park in agreed locations as determined by Project plan. HOLDING LOCATION: A27 Old Shoreham Road Layby. Services as shown on following pages.

All deliveries that do not keep to the Traffic Management Plan will be turned away with no abortive costs to Real.

Deliveries will only be accepted between the hours of 7:30am and 4:30pm Mon-Fri and 8am and 12.30pm Saturdays

(subject to agreement with Real management).

Project Speed Limit 5mph.

All Pedestrians to enter through gate 2 and must keep within the pedestrian walkways shown on the Project Layout Plan and report to the site office

All drivers must report to the Gate 1 or to the gateman and must call ahead.

All service providers are to report to the site office upon arrival for a site induction.

All vehicles movements within the construction area must be under the guidance of a banksman at all times.

All drivers must wear PPE while on Project this includes safety helmet, hi-vis clothing, gloves and boots plus other PPE as directed by the RAMS for the activities being carried out.

Dependant on site conditions and when applicable all vehicles when leaving site must ensure their vehicle wheels have been cleaned using the on site wheel washing facility.

Delivery of heavy, awkward loads or fuel must have an agreed Risk Assessment Method Statement signed by Operational Management or the delivery may be rejected.

Any accidents or incidents must be reported to the site management immediately, with relevant details entered into the accident book kept on site

No visitor car parking is available on Project.

All vehicles must be parked off the road for unloading. No blocking the highway. There is no off road parking on site, one in one out basis on gate 1. Call Ahead! Correct documentation for vehicles with Hiab, including thorough examination certificates and driver competency to operate the machinery.

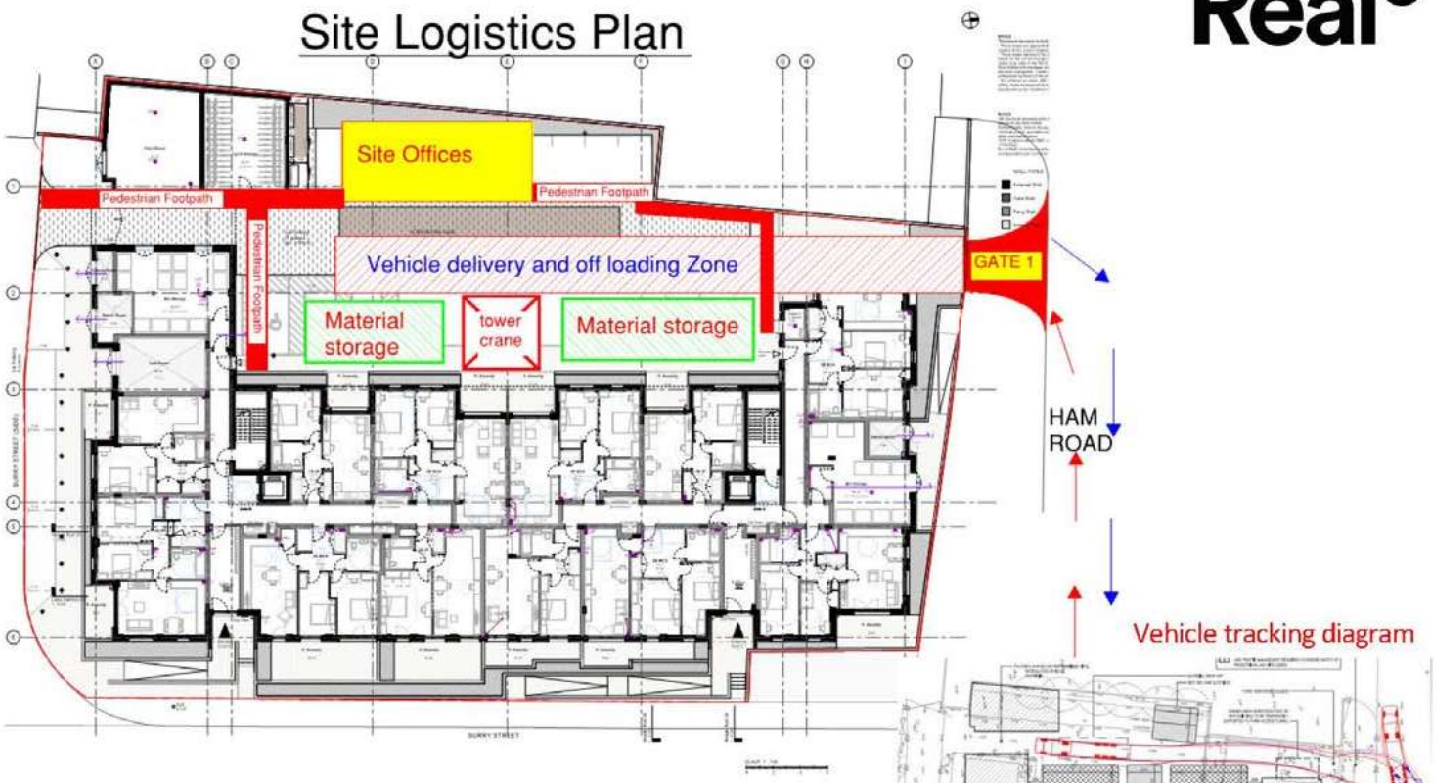
All vehicles to have a Safe System of Work to prevent falls from vehicles.

ALL DRIVERS MUST HAVE RECEIVED A COPY OF THIS TMP BEFORE ARRIVAL TO THE PROJECT

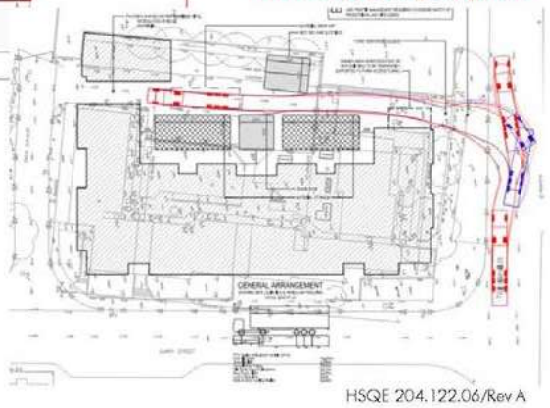
HSQE 204.122.06/Rev A

Real

Site Logistics Plan



Vehicle tracking diagram

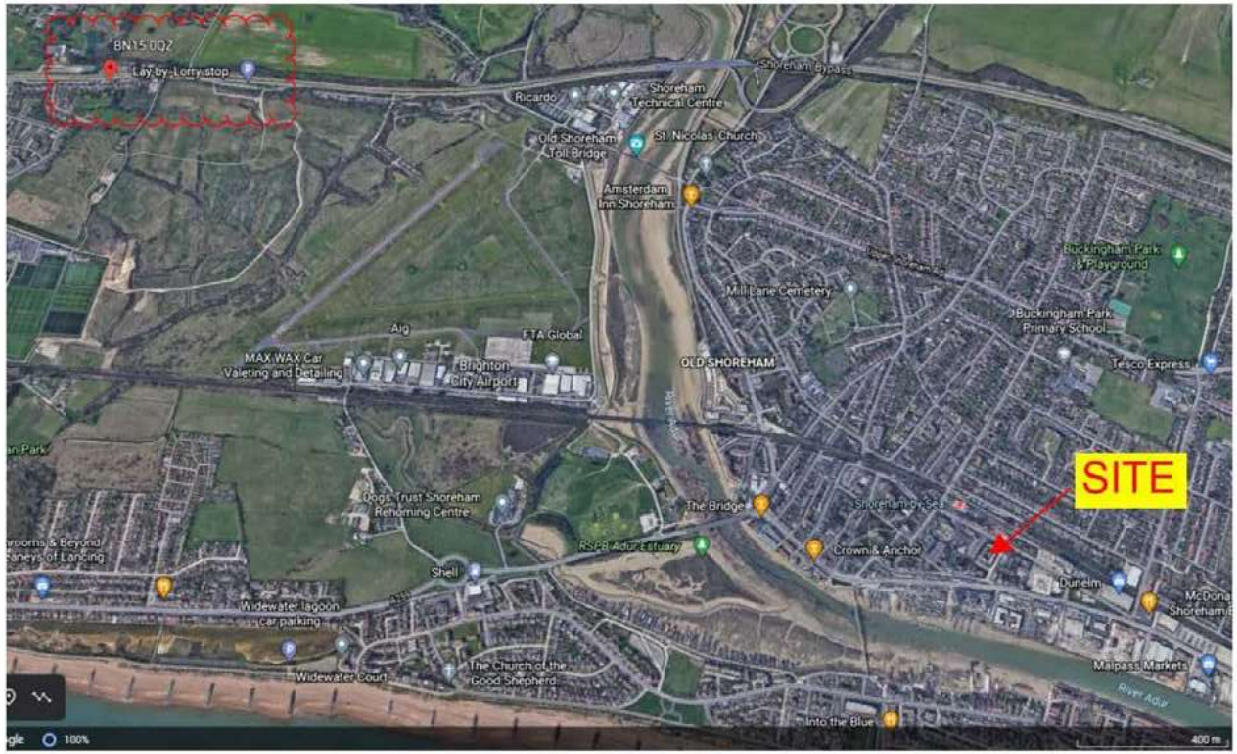


YOU MUST CALL 15 MINS IN ADVANCE OF ARRIVAL **(add phone number here)**

HSQE 204.122.06/Rev A

Real

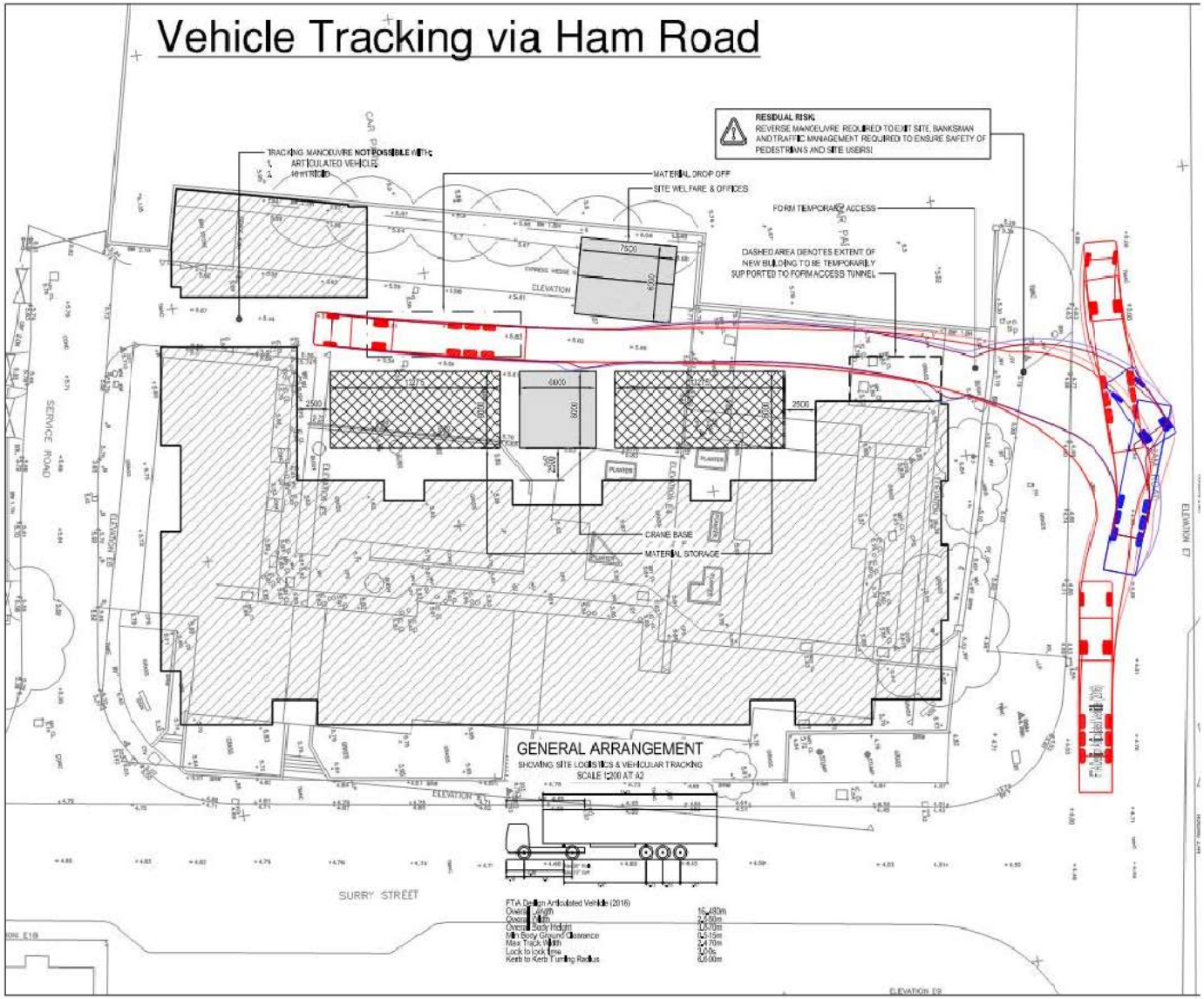
Route From Holding Area via A27 Shoreham Road Layby



YOU MUST CALL 15 MINS IN ADVANCE OF ARRIVAL

[redacted]

HSQE 204.122.06/Rev A


Vehicle Tracking via Ham Road
RESIDUAL RISK
REVERSE MANOEUVRE REQUIRED TO EXIT SITE, BANKSMAN AND TRAFFIC MANAGEMENT REQUIRED TO ENSURE SAFETY OF PEDESTRIANS AND SITE USERS!
TRACKING MANOEUVRE NOT POSSIBLE WITH ARTICULATED VEHICLE
MATERIAL DROP OFF
SITE WELFARE & OFFICES
FORM TEMPORARY ACCESS
DASHED AREA DENOTES EXTENT OF NEW BUILDING TO BE TEMPORARILY SUPPORTED TO FORM ACCESS TUNNEL
CRANE BASE
MATERIAL STORAGE
GENERAL ARRANGEMENT
SHOWING SITE LOGISTICS & VEHICULAR TRACKING
SCALE 1:200 AT A2
SURRY STREET
SERVICE ROAD
ELEVATION

APPENDIX 8: Aspects and Impacts Register

Project Name:	The Mannings	Project No.:	51001
Project Address:	The Mannings, Surry Street, Shoreham	Date:	Sept 2021
		Review Date:	Sept 2021

The project aspects and impacts evaluation identifies the key environmental risks for the project and the control measures that will be used to mitigate the risk. When completing this document reference should be made to the Real Legal Register.

This Aspect and Impacts Register must be reviewed and updated at least annually and / or following any of the following events:

- Regulatory or operational change that has the potential to introduce new requirements, hazards or risks to the project
- Significant event or environmental release
- Receiving credible stakeholder recommendations. i.e. BSI

Where impacts are identified as **HIGH** with control measures in place Section 2 of this document must be completed and implemented.

Environmental Aspects: can be defined as the activities, services and operations undertaken on site that have the potential to affect the Environment.

Environmental Impacts: can be defined as the changes to the environment whether positive or negative that resulted from the site activities and operations.

X	5	4	3	2	1
5	25	20	15	10	5
4	20	16	12	8	4
3	15	12	9	6	3
2	10	8	6	4	2

Severity	X	Likelihood
None or negligible environmental damage not violating legislation.	1	Almost Never
Minor environmental damage not violating legislation where restoration can be achieved.	2	Seldom
Reversible environmental damage that could result in breaches of legislation and enforcement action.	3	Possible

1	5	4	3	2	1
Low 1-6 Med 8 – 12 High 15-25					

Reversible environmental damage violating environmental legislation and possible prosecution.	4	Probable
Severe environmental damage that may have a permanent effect on the environment and will result in prosecution.	5	Frequently

Rating

High	Additional controls are required and work activity must not be undertaken until these are in place. Advice should be sought from the Safety Team.
Medium	Identified controls must be fully implemented and monitored for effectiveness.
Low	No further action required.

Assessed by	Oteri Maxwell	**Position:**	HSQE Manager	**Signature:**	
Approved by	Ben Finch	**Position**	Contracts Manager	**Signature:**	

Section 1 – Aspects and Impacts identification and evaluation

EROSION, SEDIMENTATION AND WATER QUALITY	
Applicable Legislation: The Environmental Permitting (England and Wales) Regulations 2010 Environmental Protection Act 1990 Control of Asbestos Regulations 2012 Water Resources Act 1991	
Aspect	
Site investigation:	- Bore holes, trial pits, scanning and surveying of site locations.
Site preparation:	- Vegetation clearance, topsoil stripping, site set up
Enabling works:	- Groundworks, site access/egress, demolition and soft strip
Construction phase:	- Substructure elements such as Culverts, services / utilities, foundations and piling - Superstructure elements such as RC / steel frame construction, temporary structures - General construction such as roofing Brick, Block & Stonework, cladding, carpentry, plastering, ceilings, floors, decoration, landscaping
Ancillary activities:	- Chemical and fuel storage, use of silos and maintenance and servicing - Fuelling of plant and equipment - Water use / extraction and dewatering - Materials stockpiling such as mulch, topsoil and aggregates

Impact	L	S	R	Control Measures	L	S	R
Drilling of boreholes / excavation of trial pits may reveal contaminated material leading to contamination of local watercourses, surface and groundwater.	3	2	L	• *Watching brief during all excavation works.* • *Desktop study of site history undertaken prior to any excavations to determine likelihood and nature of contamination in subsoil.* • *Works undertaken by suitably competent contractors with arrangements for control of excavated material in place.* • *Where discovered all contaminated subsoil will be excavated and removed from site in accordance with REAL Contaminated Land Procedure – GRO PM HS&E CL.* • *Contaminated subsoil will be bagged and removed from site upon excavation. No contaminated subsoil will be stored on site.*	3	1	L
Reduced water quality in local watercourses due to contamination from debris, dusts and sediment	3	3	M	• *All materials and excavated material to be stored away from watercourses and covered.* • *Use of heras fence panels with debris netting / timber hoardings or similar to act as a physical barrier to prevent passage of dusts and debris.* • *Suitable skips / waste bins provided for all site waste materials.* • *Monitoring of watercourse to be implemented to ensure water quality not affected.* • *Ongoing monitoring of ground conditions and water courses during the works.* • *Install sediment fences along the low side of the site.* • *Regular sweeping of roads and paths – avoid hosing down.* • *Re-vegetate site as soon as possible.* • *Connect downpipes from the guttering to the storm water drain as soon as possible.*	3	1	L
Eroded areas following soil stripping operations deposited in watercourses as sediments.	3	3	M	• *During design stage need for soil stripping to be assessed and minimised.* • *Ground to be suitably compacted during strip out to reduce erosion.* • *Additional substructure elements such as matting and temporary supports in place to increase subsoil cohesion.* • *Ongoing monitoring of ground conditions and water courses during the works.* • *Install sediment fences along the low side of the site.* • *Regular sweeping of roads and paths – avoid hosing down.* • *Re-vegetate site as soon as possible* • *Connect downpipes from the guttering to the storm water drain as soon as possible.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
Contamination of surface local watercourses, surface and groundwater from fuel / oil spills.	3	3	M	• *Amounts of fuel / oils stored to be minimal (XX ltrs)* • *Fuels oils to be stored in bunded containers and subject to weekly inspections.* • *Spill kits located adjacent to storage areas and operative strained in use.* • *Only suitably trained and competent operatives to undertake refuelling / maintenance of plant and machinery.* • *Subcontractors to provide COSHH assessments for all fuels/oils on site.*	3	1	L
Contamination of local watercourses, surface and groundwater by concrete slurry / curing compound	3	3	M	• *Identified wash down area identified and / or wash down facility established.* • *Slurry from wash down / concrete works allowed to dry and then removed from site as solid waste.* • *Temporary bunds established across all down slope gutters when pumping concrete.* • *Concrete mixing activities undertaken in a specified area designed to contain any spills, residue and waste.* • *Existing drains and manholes identified and protected where required.*	3	1	L
Contamination of local watercourses, surface and groundwater from spraying of herbicides.	3	3	M	• *Identified wash down area identified and / or wash down facility established.* • *Slurry from wash down / concrete works allowed to dry and then removed from site as solid waste.* • *Temporary bunds established across all down slope gutters when pumping concrete.* • *Concrete mixing activities undertaken in a specified area designed to contain any spills, residue and waste.* • *Existing drains and manholes identified and protected where required.*	3	1	L
Contaminated run off affecting water quality to local watercourses, surface and groundwater.	3	3	M	• *Identified wash down area identified and / or wash down facility established.* • *Slurry from wash down / concrete works allowed to dry and then removed from site as solid waste.* • *Temporary bunds established across all down slope gutters when pumping concrete.* • *Concrete mixing activities undertaken in a specified area designed to contain any spills, residue and waste.* • *Existing drains and manholes identified and protected where required.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
Negative impact on aquatic ecosystems, i.e. habitat degradation, fish kills and weed invasion.	3	3	M	• *Installation of fencing / barriers along watercourses.* • *Ongoing monitoring of ground conditions and water courses during the works.* • *Connect downpipes from the guttering to the storm water drain as soon as possible.* • *Use of chemical and hazardous substance to be controlled in accordance with COSHH assessments.*	3	1	L
Drawdown of local groundwater levels and reduced recharge rates.	3	3	M	• *Existing groundwater levels to be established prior to works starting on site.* • *Ongoing monitoring of groundwater levels* • *Dewatering activities to be undertaken following specialist advice and guidance.* • *Specialist subcontractors to be used where dewatering is to be undertaken.*	3	1	L
Excessive water usage for site operations.	3	3	M	• *Water requirements for site to be established during pre-start.* • *Water meters installed and data uploaded onto Accuvio and usage monitored.*	3	1	L
Contamination of local watercourses, surface and groundwater from chemical / fuel and oil spills / leaks.	3	3	M	• *Amounts of chemicals stored to be minimal.* • *Chemicals / Fuels / Oils to be stored in bunded containers and subject to weekly inspections.* • *Spill kits located adjacent to storage areas and operative strained in use.* • *Only suitably trained and competent operatives to undertake refuelling / maintenance of plant and machinery.* • *Amounts of fuel / oils stored to be minimal (XX ltrs)* • *Subcontractors to provide COSHH assessments for all chemicals on site.*	3	1	L
Contamination of local watercourses, surface and groundwater from concrete wash out and silos.	3	3	M	• *Identified wash down area identified and / or wash down facility established.* • *Slurry from wash down / silos allowed to dry and then removed from site as solid waste.* • *Temporary bunds established when using wash out / silos.* • *Silos located in a specified area designed to contain any spills, residue and waste.* • *Existing drains and manholes identified and protected where required.*	3	1	L
Negative impact on aquatic ecosystems, i.e. habitat degradation, fish kills and weed invasion.	3	3	M	• *Installation of fencing / barriers along watercourses.* • *Ongoing monitoring of ground conditions and water courses during the works.* • *Connect downpipes from the guttering to the storm water drain as soon as possible.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
				• *Use of chemical and hazardous substance to be controlled in accordance with COSHH assessments.*			
Contamination of local watercourses, surface and groundwater by tannins from organic material.	3	3	M	• *Topsoil storage to be located away from local watercourses.* • *Monitoring of watercourses where there is potential for contamination.* • *Topsoil to be reused on other sites to eliminate need for on site storage.*	3	1	L
Reduced water quality in local waterways due to contamination from unstable / poorly segregated stockpiles.	3	3	M	• *Material stockpiles to be located away from local watercourses.* • *Material stockpiles to be covered to prevent dust / fines being blown into watercourses.* • *Amounts of stored materials to be minimised.* • *Watercourses to be protected with debris netting.*	3	1	L

FLORA AND FAUNA	
Applicable Legislation:	
The Environmental Permitting (England and Wales) Regulations 2010	
Environmental Protection Act 1990	
Conservation of Habitats and Species Regulations 2010	
Aspect	
Site investigation:	- Bore holes, trial pits, scanning and surveying of site locations.
Site preparation:	- Vegetation clearance, topsoil stripping, site set up
Enabling works:	- Groundworks, site access/egress, demolition and soft strip
Construction phase:	- Substructure elements such as Culverts, services / utilities, foundations and piling
	- Superstructure elements such as RC / steel frame construction, temporary structures
	- General construction such as roofing Brick, Block & Stonework, cladding, carpentry, plastering, ceilings, floors, decoration, landscaping
Ancillary Activities:	- Chemical and fuel storage, use of silos and maintenance and servicing - Fuelling of plant and equipment - Water use / extraction and dewatering - Materials stockpiling such as mulch, topsoil and aggregates

Impact	L	S	R	Control Measures	L	S	R
Loss of native vegetation and wildlife habitat / negative impact on local wildlife population.	3	3	M	• *Watching brief during all excavation works.* • *Pre start surveys to identify any vulnerable wildlife and vegetation.* • *Suitable protective measures to be implemented such as fencing, crossings, protected zones.*	3	1	L
Existing wildlife and vegetation requiring protection not identified.	3	3	M	• *Pre start surveys to identify any vulnerable wildlife and vegetation.* • *Pre start HS&E meeting undertaken prior to works starting.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.* • *Liaison with local authority EH officer / department.*	3	1	L
Wildlife and vegetation protection arrangements not adequately implemented.	3	3	M	• *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.* • *Requirements identified during HS&E pre start meeting and monitored during site set up to ensure suitable.* • *Liaison with local authority EH officer / department.*	3	1	L
Invasion of weeds and unwanted vegetation.	3	3	M	• *Identification of local flora prior to work starting.* • *Vegetation clearance to be undertaken by a competent subcontractor to ensure no uncontrolled dispersal of vegetation.* • *Ongoing monitoring of site by site team.* • *Removal of existing vegetation during strip out and monitored during contract.*	3	1	L
Reduced water quality in local waterways leading to a loss of aquatic wildlife / fish passage.	3	3	M	• *Ongoing monitoring of ground conditions and water courses during the works.* • *Install sediment fences along the low side of the site.* • *Regular sweeping of roads and paths – avoid hosing down.* • *Pre start surveys to identify any vulnerable wildlife.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.* • *Liaison with local authority EH officer.* • *Installation of fencing / barriers along watercourses.* • *Ongoing monitoring of ground conditions and water courses during the works.* • *Connect downpipes from the guttering to the storm water drain as soon as possible.* • *Use of chemical and hazardous substance to be controlled in accordance with COSHH assessments.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
Vegetation clearing occurs outside agreed locations and limits.	3	3	M	• *Competent subcontractor to be used.* • *Clearance areas clearly identified during subcontractor pre-start.* • *Clearance areas marked out on site.* • *Ongoing monitoring by site team during works.*	3	1	L
Contamination to other areas due to removal process and / or lack of control of operation.	3	3	M	• *Identification of local flora prior to work starting.* • *Vegetation clearance to be undertaken by a competent subcontractor to ensure no uncontrolled dispersal of vegetation.* • *Ongoing monitoring of site by site team.* • *Removal of existing vegetation during strip out and monitored during contract.*	3	1	L
Contamination to local vegetation / wildlife habitat due to poor storage of waste material / chemicals / substances / materials.	3	3	M	• *Waste skips to be provided and regularly emptied / replaced.* • *Storage of materials to be minimised.* • *Storage and waste areas to be bunded where required.* • *Soil and aggregate piles to be covered / protected.* • *Topsoil to be reused on other sites rather than stored on site.*	3	1	L
Damage to wildlife and local vegetation from vehicle movements and emissions.	3	3	M	• *Vehicle routes established during site start up to reduce impact on local environment.* • *All vehicles under the control of a banksman at all times.* • *Competent operators (CPCS Card) only to operative vehicles and plant.* • *All plant to comply with Non Road Mobile Machinery (NRMM) requirements – GLA only.* • *All plant subject to regular maintenance.* • *Engines switched off when not in use. Not left idling during loading etc.* • *Refuelling areas to be established away from sensitive areas with bunds and spill kits available.*	3	1	L
	3	3	M	• *Installation of fencing / barriers along watercourses.* • *Ongoing monitoring of ground conditions and water courses during the works.* • *Connect downpipes from the guttering to the storm water drain as soon as possible.* • *Use of chemical and hazardous substance to be controlled in accordance with COSHH assessments.*	3	1	L
Contamination of vegetation and wildlife from spraying of herbicides.	3	3	M	• *Permission to be obtained from the Environment Agency using form AqHerb01.* • *Suitably competent subcontractor to be used for all spraying activities.* • *No spraying to be undertaken during windy and wet weather.* • *Use of alternative means of vegetation control to be considered.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
Loss of native vegetation and wildlife habitat / negative impact on local wildlife population.	3	3	M	• *Watching brief during all excavation works.* • *Pre start surveys to identify any vulnerable wildlife and vegetation.* • *Suitable protective measures to be implemented such as fencing, crossings, protected zones.*	3	1	L

AIR QUALITY	
Applicable Legislation:	
The Environmental Permitting (England and Wales) Regulations 2010	
Environmental Protection Act 1990	
Environment Act 1995	
Clean Air Act 1993	
Aspect	
Site investigation:	- Bore holes, trial pits, scanning and surveying of site locations.
Site preparation:	- Vegetation clearance, topsoil stripping, site set up
Enabling works:	- Groundworks, site access/egress, demolition and soft strip
Construction phase:	- Substructure elements such as Culverts, services / utilities, foundations and piling
	- Superstructure elements such as RC / steel frame construction, temporary structure
	- Welding
	- General construction such as roofing Brick, Block & Stonework, cladding, carpentry, plastering, ceilings, floors, decoration, landscaping
Ancillary Activities:	- Chemical and fuel storage, use of silos and maintenance and servicing - Fuelling of plant and equipment - Water use / extraction and dewatering - Materials stockpiling such as mulch, topsoil and aggregates

Impact	L	S	R	Control Measures	L	S	R
Dust and fines contaminating surrounding areas outside of site limits and work locations.	3	3	M	• *Regular sweeping of roads and paths.* • *Damping down of operations generating dust / fines.* • *Use of debris netting to heras fencing along perimeter.* • *Perimeter hoarding to be installed along site boundary to provide a physical barrier to the passage of dust / fines.* • *Use of local extraction to dust generating operations.* • *Materials cut off site.*	3	1	L
Excessive fumes and air pollution due to outdated / poorly maintained plant and equipment.	3	3	M	• *All plant / equipment to be subject to regular maintenance.* • *Works planned to reduce unnecessary plant use.* • *All plant to comply with Non Road Mobile Machinery (NRMM) requirements – GLA only.* • *All plant / equipment subject ot regular checks / inspections.* • *Competent operators to be used.* • *Engines switched off when not in use. Not left idling during loading etc.*	3	1	L
Build-up of mud and debris on access/egress routes resulting in dust and fines contaminating surrounding areas.	3	3	M	• *Wheel wash to be installed on site.* • *Traffic routes regularly swept to prevent build up of mud/ debris.* • *Damping down of roadways where no hazard to watercourses.* • *Use of type 1 on surfaces to improve ground conditions and reduce dust / fines.* • *Ongoing monitoring and inspection during the contract.*	3	1	L
Excessive fumes and air pollution due to use of generators for temporary power supplies.	3	3	M	• *Mains power to be installed as early as possible.* • *Generator switched off outside of site hours.* • *Super silenced efficient generators to be used.* • *Generators regularly maintained and inspected.*	3	1	L
Excessive fumes from vehicle movements within the site and / or deliveries to site due to poor logistics and planning and excessive relocation of materials stockpiles.	3	3	M	• *Site layout planned during pre-start to minimise vehicle movements.* • *All vehicles under the control of a banksman at all times.* • *Competent operators (CPCS Card) only to operative vehicles and plant.* • *All plant to comply with Non Road Mobile Machinery (NRMM) requirements – GLA only.* • *All deliveries planned in accordance with TMP.* • *Engines switched off when not in use. Not left idling during loading etc.* • *Works programmes to be developed to reduce need to relocate materials.* • *Storage areas to be located so as to minimise need to relocate.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
				• *Storage of materials to be minimised.* • *Materials to be delivered to work areas directly.* • *Refuelling areas located away from sensitive areas with bunds and spill kits available.*			
Hardening / degradation of made up ground / walk routes and road ways increasing amount of dusts / fines in the air.	3	3	M	• *Regular sweeping of roads and paths.* • *Damping down of road areas where watercourses will not be affected.* • *Road ways subject to regular checks and inspections.* • *Use of type 1 on surfaces to improve ground conditions and reduce dust / fines.*	3	1	L
Wind loads on stockpiles causing dust and fines to contaminate surrounding areas.	3	3	M	• *Material stockpiles to be located away from sensitive areas.* • *Material stockpiles to be covered to prevent dust / fines being blown into watercourses.* • *Amounts of stored materials to be minimised.* • *Surrounding areas to be protected with debris netting / hoarding.*	3	1	L
Excessive dust, fumes and gases from welding and cutting activities.	3	3	M	• *Use of local extraction for fume generating operations* • *Use of local extraction for dust generating operations*	3	1	L

WASTE AND ENERGY	
Applicable Legislation:	
The Environmental Permitting (England and Wales) Regulations 2010	
Environmental Protection Act 1990	
Control of Asbestos Regulations 2012	
Waste Electrical and Electronic Equipment Regulations 2013	
Hazardous Waste (England and Wales) Regulations 2005	
Aspect	
Site investigation:	- Bore holes, trial pits, scanning and surveying of site locations.
Site preparation:	- Vegetation clearance, topsoil stripping, site set up
Enabling works:	- Groundworks, site access/egress, demolition and soft strip
Construction phase:	- Substructure elements such as Culverts, services / utilities, foundations and piling
	- Superstructure elements such as RC / steel frame construction, temporary structures
	- General construction such as roofing Brick, Block & Stonework, cladding, carpentry, plastering, ceilings, floors, decoration, landscaping
Ancillary Activities:	- Chemical and fuel storage, use of silos and maintenance and servicing - Fuelling of plant and equipment - Water use / extraction and dewatering - Materials stockpiling such as mulch, topsoil and aggregates

Impact	L	S	R	Control Measures	L	S	R
Waste not removed by a licensed waste removal company.	3	3	M	• *REAL PQQ process ensures that all subcontractors removing waste provide copies of their licences.* • *Licences checked as part of PQQ process.* • *Waste recorded on Accuvio and waste transfer notes uploaded.* • *Accuvio checked monthly in the 4 weekly HS&E meeting.*	3	1	L
Waste materials not stored / bagged to prevent contamination to other areas.	3	3	M	• *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.* • *Suitable waste segregation skips provided.* • *Use of Hazibags on site.* • *Waste bins / skips located throughout the site.* • *All operatives inducted on waste requirements / measures of site.*	3	1	L
No assurance that waste removed from site has gone to a licensed waste receiver.	3	3	M	• *Licensed waste removal companies only to be used.* • *All waste transfer notes uploaded onto Accuvio and checked monthly.* • *Waste requirements detailed ion subcontractor order and in subcontractor pre start meeting.*	3	1	L
Excessive energy usage in accommodation and welfare units.	3	3	M	• *All site units are Eco cabins.* • *Use of electricity and water monitored monthly through use of smartmeters.* • *Motion sensors to lighting.*	3	1	L
Waste not effectively segregated leading to cross contamination.	3	3	M	• *Use of hazibags on site for hazardous waste.* • *Waste segregated by type using suitably signed skips.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.*	3	1	L
Excessive number of muck away lorries used / required.	3	3	M	• *Excavated topsoil to be reused on site.* • *Muck away to be planned during pre-start and controlled by site team.* • *During design stage surface strip to be minimised.* • *Reuse of excavated material by local communities / projects.*	3	1	L
Increased greenhouse gas emissions due to consumption of energy from non-	3	3	M	• *Minimise used of generators by ensuring mains power provided as soon as possible.* • *Diesel generators to be switched off when not in use / not required.*	3	1	

Impact	L	S	R	Control Measures	L	S	R
renewable resources, such as diesel, purchase of non local products / services.				• *Use of 110v transformers throughout site fed from mains supply.* • *Products / subcontractors to be sourced locally where possible.* • *Compliance with REAL sustainable procurement policy and procedures.* • *Engagement with local communities to obtain local services / products etc.*			L
Spread of contaminated waste.	3	3	M	• *Specific waste skips to be located throughout the site and at all work areas.* • *All operatives inducted on REAL waste arrangements.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.* • *Use of hazibags for hazardous waste.* • *Skips covered when removed / during high winds etc.*	3	1	L
Inappropriate disposal of waste.	3	3	M	• *Specific waste skips to be located throughout the site and at all work areas.* • *All operatives inducted on REAL waste arrangements.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.* • *All waste removed by licensed waste contractors* • *All waste tracked through the Accuvio system.*	3	1	L
Litter	3	3	M	• *Subcontractors inducted on requirements of REAL's clean floor policy.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.*	3	1	L
Excessive packaging on products delivered to site.	3	3	M	• *REAL to work with suppliers to reduce packing.* • *REAL suppliers to work within the REAL sustainable procurement arrangements.* • *Packaging to be recycled.*	3	1	L
Excessive paper use.	3	3	M	• *Use of electronic documentation through the REAL DMS.* • *Paper to be recycled / re-used.* • *Site team to avoid printing of documents / paperwork.* • *Use of electronic systems such as Fieldview / Aconex etc. to reduce need for paper documents.*	3	1	L
Over-ordering of materials resulting in waste.	3	3	M	• *Works to be planned and monitored against programme.* • *Ongoing liaison with designers to ensure materials sourced are to design requirements.*	3	1	L

Impact	L	S	R	Control Measures	L	S	R
				• *REAL to source all materials for site works.* • *Materials to be ordered to required size to reduce off cuts / waste.*			
Inefficient use or reuse of available resources and topsoil, mulch, backfill material.	3	3	M	• *Reuse of site materials to be determined during site pre start meeting.* • *Site programme to be designed to ensure effective reuse of materials.* • *Engagement with local communities to establish reuse / recycling opportunities.*	3	1	L
Loss of reusable material (top soil, backfill material etc.) due to contamination from poor storage arrangements.	3	3	M	• *Material stockpiles to be located away from local watercourses.* • *Material stockpiles to be covered to prevent dust / fines being blown into watercourses.* • *Amounts of stored materials to be minimised.* • *Ongoing monitoring of Environmental issues throughout the duration of the contract by the site team and HSQ&E Advisor.*	3	1	L

BUILT HERITAGE, ARCHAEOLOGY AND LOCAL ENVIRONMENT	
Applicable Legislation:	
Ancient Monuments (applications for scheduled monument consent) 1981	
Own and Country Planning (Tree Preservation) (England) 2012	
Aspect	
Site investigation:	- Bore holes, trial pits, scanning and surveying of site locations.
Site preparation:	- Vegetation clearance, topsoil stripping, site set up
Enabling works:	- Groundworks, site access/egress, demolition and soft strip
Construction phase:	- Substructure elements such as Culverts, services / utilities, foundations and piling
	- Superstructure elements such as RC / steel frame construction, temporary structures
	- General construction such as roofing Brick, Block & Stonework, cladding, carpentry, plastering, ceilings, floors, decoration, landscaping
Ancillary Activities:	- Chemical and fuel storage, use of silos and maintenance and servicing - Fuelling of plant and equipment - Water use / extraction and dewatering - Materials stockpiling such as mulch, topsoil and aggregates

Impact	L	S	R	Control Measures	L	S	R
Damage or adverse impacts to known heritage / archaeological items.	3	3	M	• *Desktop study of site history undertaken prior to any works being undertaken.* • *Works undertaken by suitably competent contractors with arrangements for local heritage / archaeology.* • *Archaeological specialist to be brought in to advise on protection arrangements.*	3	1	L
Damage to unknown heritage / archaeological items.	3	3	M	• *Desktop study of site history undertaken prior to any works being undertaken.* • *Works undertaken by suitably competent contractors with arrangements for local heritage / archaeology.* • *Archaeological specialist to be brought in to advise on protection arrangements.*	3	1	L
Vehicle traffic causes damage to existing infrastructure affecting local community.	3	3	M	• *All vehicle movement and deliveries to be undertaken in accordance with site TMP.* • *Vehicle movements undertaken under the control of Gateman / Banksman.* • *Site vehicle / plant routes developed during pre-start phase.* • *Pre start surveys to identify any potential issues with local infrastructure.* • *Suitable protection put in place where required.*	3	1	L
Mud tacking on public roads leading to potential contamination of surrounding areas and complaints.	3	3	M	• *Wheel wash/jet wash to be installed on site.* • *Traffic routes regularly swept to prevent build up of mud/ debris.* • *Damping down of roadways where no hazard to watercourses.* • *Use of type 1 on surfaces to improve ground conditions and reduce dust / fines.* • *Ongoing monitoring and inspection during the contract.*	3	1	L
Non-compliance with Local Authority environmental conditions / planning requirements.	3	3	M	• *Liaison with LA prior to works starting to establish site specific controls and requirements.* • *Ongoing monitoring by site teams and LA officers.*	3	1	L
Non-compliance with Non Road Mobile Machinery (NRMM) requirements – GREATER LONDON ONLY	3	3	M	• *Competent operators (CPCS Card) only to operative vehicles and plant.* • *All plant to comply with Non Road Mobile Machinery (NRMM) requirements – GLA only.* • *All plant subject to regular maintenance.* • *Engines switched off when not in use. Not left idling during loading etc.*	3	1	L

NOISE AND VIBRATION	
Applicable Legislation:	
The Environmental Permitting (England and Wales) Regulations 2010	
Environmental Protection Act 1990	
Noise and Statutory Nuisance Act 1993	
Aspect	
Site investigation:	- Bore holes, trial pits, scanning and surveying of site locations.
Site preparation:	- Vegetation clearance, topsoil stripping, site set up
Enabling works:	- Groundworks, site access/egress, demolition and soft strip
Construction phase:	- Substructure elements such as Culverts, services / utilities, foundations and piling
	- Superstructure elements such as RC / steel frame construction, temporary structures
	- General construction such as roofing Brick, Block & Stonework, cladding, carpentry, plastering, ceilings, floors, decoration, landscaping
Ancillary Activities:	- Chemical and fuel storage, use of silos and maintenance and servicing - Fuelling of plant and equipment - Water use / extraction and dewatering - Materials stockpiling such as mulch, topsoil and aggregates

Impact	L	S	R	Control Measures	L	S	R
Noise from site construction activities such as piling, earthworks etc. causes disturbance and leads to community complaints	3	3	M	• *Section 61 to be applied for once work commences* • *Works to be undertaken between agreed times.* • *Letter drops to local residents.* • *Ongoing monitoring by the site team and HSQ&E Advisor.*	3	1	L
Noise from site construction activities such as piling, earthworks etc. has an adverse impact on the local wildlife.	3	3	M	• *Watching brief during all excavation works.* • *Pre start surveys to identify any vulnerable wildlife and vegetation.* • *Ongoing monitoring the site team and HSQ&E Advisor.*	3	1	L
Vibration from site construction activities such as piling, earthworks etc. causes disturbance and leads to community complaints	3	3	M	• *Works to be undertaken between agreed times.* • *Letter drops to local residents.* • *Ongoing monitoring by the site team and HSQ&E Advisor.*	3	1	L
Vibration from impact piling works causes damage to structures and leads to community complaints.	3	3	M	• *Watching brief during all works generating excessive vibration.* • *Pre start surveys to identify any vulnerable wildlife and vegetation.* • *Ongoing monitoring the site team and HSQ&E Advisor.* • *Archaeological / structural surveys undertaken prior to works staring.* • *Potentially affected structures supported / propped and monitored.*	3	1	L
Vibration from site construction activities such as piling, earthworks etc. has an adverse impact on the local wildlife and vegetation.	3	3	M	• *Watching brief during all excavation works.* • *Pre start surveys to identify any vulnerable wildlife and vegetation.* • *Ongoing monitoring the site team and HSQ&E Advisor.*	3	1	L
Noise from works carried out outside of the standard construction hours results in community complaints.	3	3	M	• *No works undertaken outside of agrees times.* • *LA to be contacted to agree allowances for works outside of normal hours.* • *Letter drips to local residents.*	3	1	L

Section 2 – Additional Control Measures for HIGH risk Impacts

Impact Ref. No.	Additional control measures to be implemented	Revised Risk Rating			Management action plan to achieve identified controls		
		L	S	R	Action	By Whom	Deadline