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Project Management Plan (PMP) / Construction Environmental Management Plan (CEMP)

Incorporating the Construction Phase, Health Safety & Environmental Plan

Address: Mill Lane, Whitburn, SR6 7BF.

What3words Location: ///panic.bats.sprint

ISSUE	DATE	DESCRIPTION OF CHANGE	SIGNED
Rev: 01	26/01/24	Initial Plan - Draft	N Singh
Rev: 02	29/01/24	Final draft Authorised	M Whittaker
Rev: 03	12/11/25	Final Draft Authorised	D. Glennie
Rev:04	30/04/26	Working Hours updated. Compound location updated. Notes on Piling activities updated to address LA Comments.	T Wilson

CONTENTS

1.0 INTRODUCTION

1.1 Scope of Works

This project has been named Laurel Gate. It comprises of 42 homes of which a percentage will be available as an affordable element the project. In addition to this housing, new landscaping works and associated infrastructure is also required. Works are to include site clearance, piling and excavation works.

- Proposed Construction commencement date: 27/03/2026
- Proposed Construction completion date: 02/04/2027

Prior construction of site frontage along Mill Lane a Dilapidation Survey will be completed to illustrate conditions prior.

1.2 Preparation of the CEMP

This Construction Environmental Management Plan (CEMP) incorporates the Management Systems for the project works. It sets out the policies and environmental controls required to ensure that the environmental impacts are minimised. It highlights the key activity specific risks, detail control measures, and refers to all associated forms and registers where required. All items specifically required by the client in the CEMP are covered.

The preparation and implementation of Construction Environmental Management Plan (CEMP) is widely considered to be best practice (by statutory and non-statutory bodies as well as major companies in many sectors) to manage the environmental effects of their projects and to demonstrate compliance with environmental legislation.

The Construction Environmental Management Plan (CEMP) is an expanded and more detailed version of the Environmental Management Plan that contains all the information required for the appropriate management of environmental effects during construction of the project. It will be used as the main reference document to ensure and record successful completion of any identified Environmental Actions.

The CEMP has prepared by Lovell with some involvement with their appointed groundworker, supported by the designer, civil engineer and the environmental co-ordinator.

Prior to the commencement of any works on site, the CEMP will need to be submitted to, and approved in writing, by the Local Authority.

The CEMP considers activities associated with the construction phase; potential environmental impacts of construction activities; and how these activities will be managed to avoid, minimise or mitigate effects on the environment and surrounding area.

The CEMP details the implementation of measures in accordance with any previous environmental commitments outlined in the Planning Conditions; the Section 106 agreement, any Environmental Statement, Policy or other legislative requirements.

The CEMP is a 'live' document which will be reviewed and updated at regular intervals throughout the project's life cycle.

1.3 Communication of the CEMP

The CEMP will be communicated to site operatives, site management staff and delivery drivers as follows:

- Prior to material and sub-contract orders being placed, the requirements of any environmental report will be sent out with enquiry documentation from the developer / contractor.
- During final negotiations with all material suppliers and sub-contractors the environmental requirements will be reiterated.
- During the pre-construction phase, the CEMP will be communicated to all site management staff through induction from the contract manager.
- During the construction phase, the CEMP will be communicated to all operatives through standard induction and regular toolbox talks by the site management team.

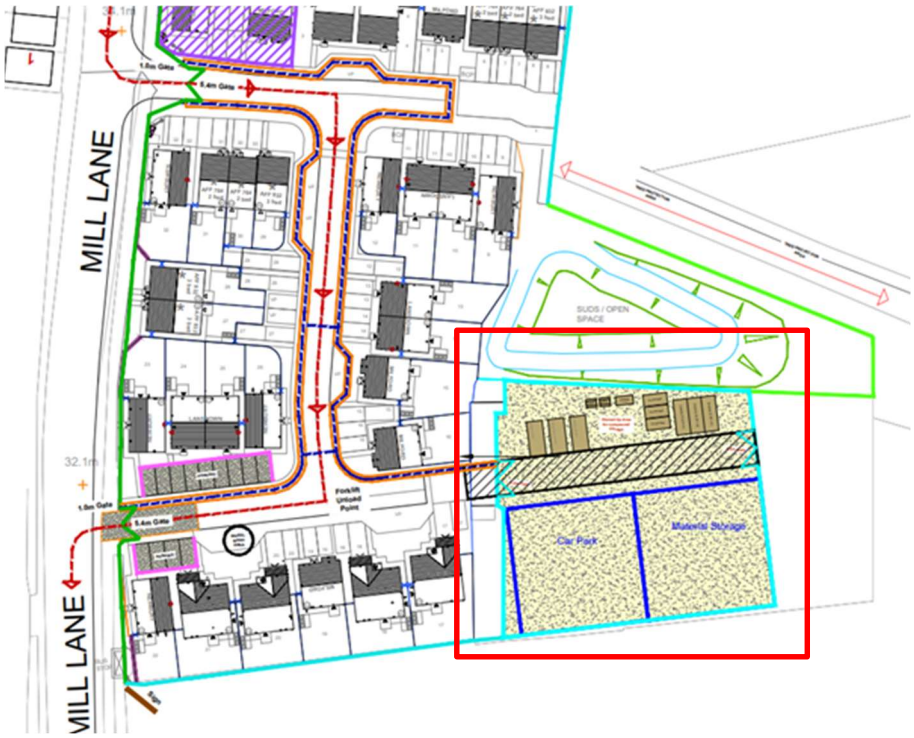
1.4 Site Security

Security measures to prevent unauthorised access to the construction site is set out in the CEMP.

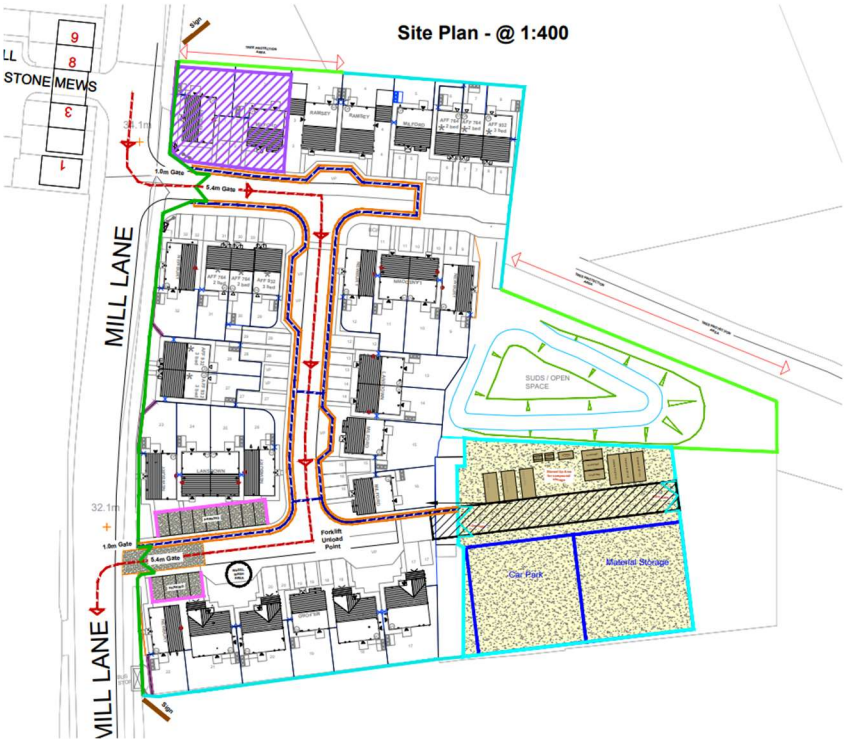
1.5 Temporary Welfare Facilities

The project relies on a suitable compound with parking & welfare facilities. In the case of Laurel Gate, this will be directly located on the site in Phase 4 construction area parallel to Mill Lane.

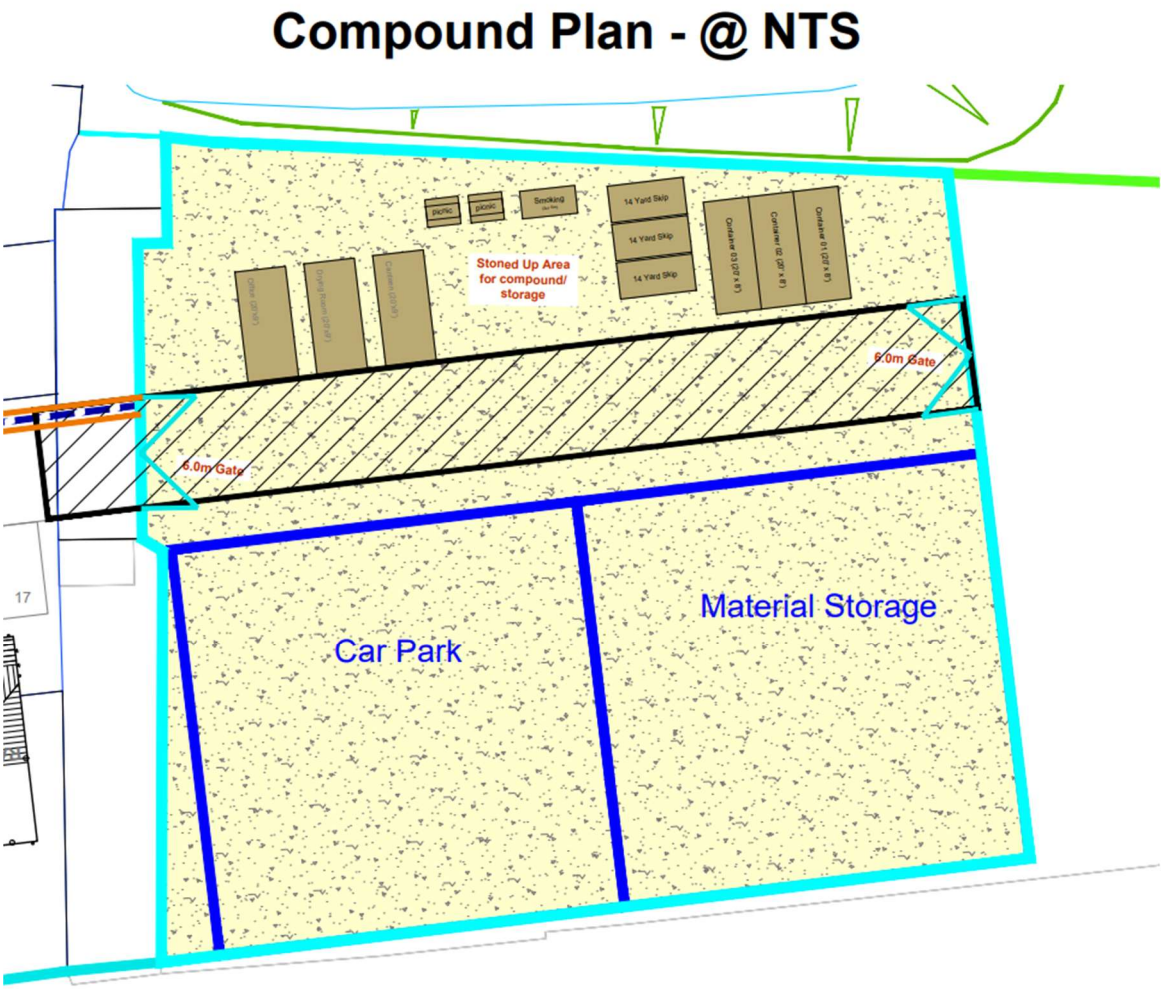
1.5.1 Compound Location Plan:



Proposed Site Boundary Line in relation to Site Compound:



1.5.2 Compound General Arrangement



This compound will be supplied with all temporary utilities from the adjacent unnamed access road with water waste management systems in place which will be regularly emptied. There will be no discharge of any waste waters into the ground nor NWL infrastructure.

There will be an allocated car park on site on both sides of the site compound with sufficient spaces for cars, vans etc with 24-hour CCTV security. Parking of all site plant and machinery will be in a locked compound overnight with 24-hour CCTV surveillance. There will be no parking on site for cars or vans at any time; all staff and subcontractors must park in the site car park provided.

1.5.3 On Site Storage

Whilst there is an allocation for compound storage, this compound site is not fully conducive to material storage due to proximity away from the extremes of the site. Therefore separate material storage facilities will be located around the construction site where needed:

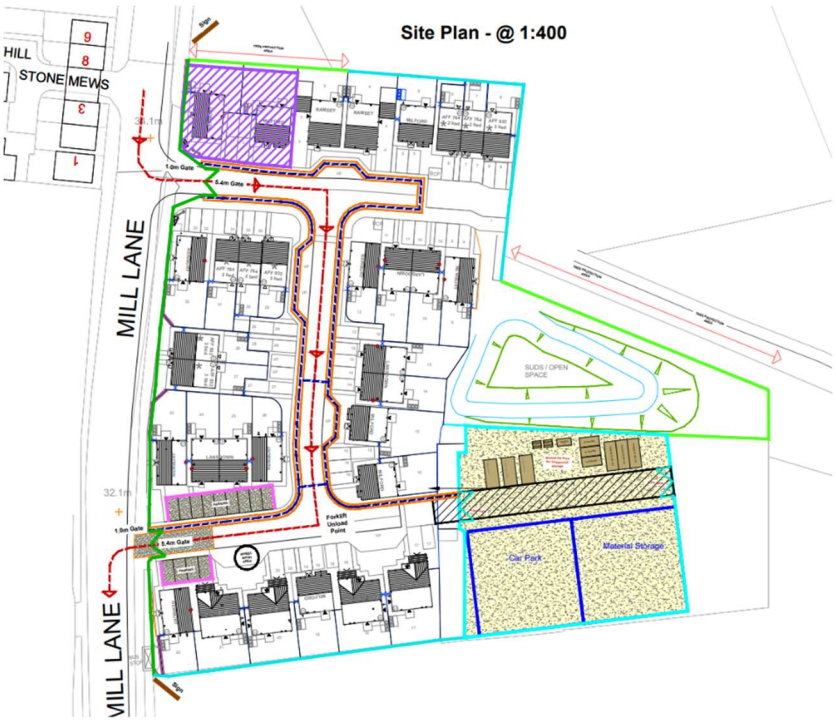
- Located to ensure sufficient room and access is available prior to delivery. They are to be designed to allow safe movement of materials and people.
- Material storage areas to be on suitable, firm, even ground and not balanced or supported against boundary fencing or hoarding.
- Palletised loads capable of being stacked directly on top of each other should be positioned on a suitable, firm level base.
- Stacks to be positioned in a stable manner and generally not exceed 2 pallets high unless determined by specific risk assessment. Un-banded or loose banded pallets to be single stacked only.
- Pallets should be examined for damage on delivery. Damaged pallets should be marked accordingly, isolated and withdrawn for repair or disposal.
- When reusing pallets, ensure they are suitable for the load and purpose for which they are to be used.
- Pallets should be inspected every time they are used to ensure they are in a safe condition and fit for their intended purpose.
- Stacks of cylindrical items, such as pipes, are to be stored flat at low level and stabilised using chocks and wedges.
- Adequate guardrails to be fitted to storage areas where there is a fall risk.
- Request minimum material quantities to suit programme using 'just in time' deliveries where practical.
- Storage racking constructed from scaffold tubes and fittings to be suitable for required loading. Bespoke designs for heavy materials to be checked in accordance with our Temporary Works policy.
- Follow manufacturers' guidance with respect to temperature, volatility, humidity and stacking requirements.
- Checking of stacks will take place periodically for stability and corrective action will take place where necessary.
- Provide suitable measures to secure storage areas as required.
- Any hazardous substances used must be securely stored away.
- Adhere to Delivering Safely Information and report non-compliance to regional Procurement team to feed back to supplier.
- PAVES arrangements to include procedures for arrival, reception, unloading/loading and movement of vehicles within the area. People and vehicles are to be segregated as far as is reasonably practicable.
- Do not store materials where they obstruct access routes or where they could interfere with emergency escape.
- Non-bulky items will be stored securely in lockable storage containers.

- Materials delivered to point of work must not obstruct PAVES or designated exit routes.
- Storage areas to be kept tidy.
- The full site, including the storage area, will be within a 2m high fully fenced site.

1.5.4 General Traffic & Operatives Movement

- The movement of these materials will be via 1No telehandler which will be securely stored within the compound at night with full CCTV.
- Deliveries will be onto the highway only whereby the telehandler will remove all materials and transfer onto site or into the compound storage. No vehicles, other than the telehandler and excavator will be permitted on site without prior permission from site manager.
- Smaller vehicles carrying larger tools etc will be permitted onto completed plot driveways for first fix onwards after all heavy plant has completed engineering works.
- Should craning be required for smart roof trussing, a full RAMS process will be submitted to the site manager prior to delivery.
- All cranes will be appropriately scaled to permit easy site access.
- All traffic & public/operatives pedestrian control will be via Lovell's PAVES traffic management & fencing protocols with appropriate banksmen, where required.
- Regular liaising will be made via Lovell's liaison officer & site/contracts manager to local business. Any concerns raised will be acted upon in a professional & courteous manner to appease both parties.
- As there are some materials stored within the site compound as well as the main skip depot, movement of the telehandlers will be significant. These movements are for the transfer of materials to and from the compound (and between various lay down areas) as well as emptying of strategically placed skips throughout the site. Because of this heavy use, there is a designated route into the site which avoids all public who are invited to the sales area.
- The compound will have a separate pavement & road access and be fully barriered in accordance with Lovell's PAVES traffic safety policy.
- Full signage along Mill Lane will direct all deliveries to the site compound. Keeping construction off Mill Lane and keeping nuisance to a minimum.
- All pedestrian operatives using the site car park to the south of the compound must cross the south unnamed site entrance road where delivery traffic may be operating. This will be at a designated crossing point barriered off in accordance with Lovell's PAVES plan. The number of deliveries to site will be low but regular therefore this poses minimal risk if operatives cross at follow PAVES direction:

PAVES - TRAFFIC MANAGEMENT PLAN LAYOUT



1.5.5 Induction / Sign in

All new suppliers, subcontractors, visitors etc will be inducted as required. A daily hazards board will be located within the compound indicating weekly occurrences such as heavy plant movement, crane visits, trench work, foundation work etc. All visitors will be required to report to the Site Manager within the Site Office on arrival and departure.

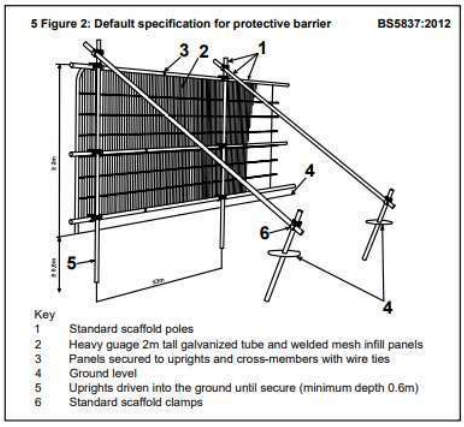
1.5.6 Build Routes

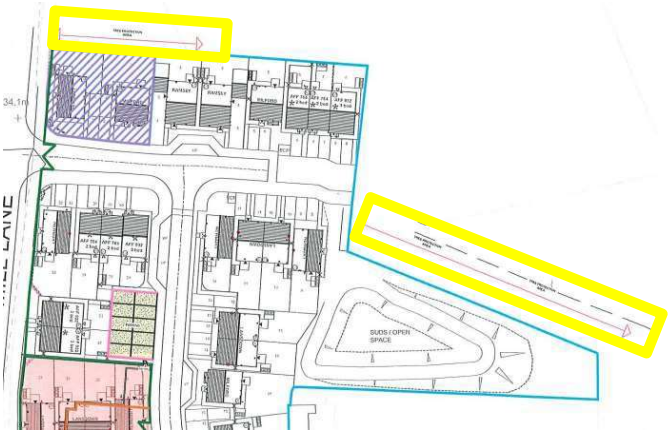
The build route will dictate where sporadic material storage will be and it will be located adjacent to any blocks of houses being built at that time. This will cut down on travel distances of materials via telehander across site, thus creating a safer working environment.

1.5.6 Site Fencing

- A two-metre high timber hoarding is to be adopted to form adequately solid security. Heras-type fencing will be used in localised areas where public security is not paramount or aesthetically required.
- Where possible, mechanical means will be used to distribute fencing installation materials to desired locations around the site.
- Panels and bases to be lifted using good lifting techniques - weights to be assessed prior to lifting.
- Team lifting is to be used when lifting or carrying panels with only one panel or one base be lifted/carried each time.
- Panels to be carried so each operative does not need to twist their body trunk at any time – panels should be put down if the handling position is to be altered.
- Access to and from work area to be assessed and cleared of all trip hazards where as far as possible.
- Suitable gloves are to be worn to prevent cuts or abrasions from sharp ends or edges of either the mesh or welds.
- Bases to be rubber not concrete (where appropriate) and to be moved around the site using mechanical aids loaded to a weight the user finds acceptable.

- Full acknowledgement of Elliots Impact Assessment Method Statement and Tree Protection Plan to north and east site boundary area has already been confirmed to protect the existing tree lines (Tree protection area highlighted yellow below). All tree protection will be in accordance with the raking support design as detailed in BS 5837 unless formally agreed by the arboculturalist:





- All general fencing panels are to be properly engaged into base holes correctly before leaving unattended.
- All panels are to be secured using clips supplied before leaving unattended for any length of time - i.e. break times etc.
- Panels to be laid flat when stored and are not to be stored any higher than 1.5m.
- Bases are to be stored in a half lap fashion to prevent tipping.
- Works are to cease in strong winds ensuring materials are adequately secured to prevent wind displacement.
- All panels are to be double clipped to prevent unauthorised persons from lifting them from their bases and twisting them open enough to gain entry to the site.
- Panels are to be suitably stabilised according to site conditions. Reference can be made to Lovell's fencing stabilisation guidance document (intranet) for stabilisation options and installed by a specialist contractor.
- Termination points are to be secured to prevent entry, i.e. by plugging and screwing to a solid masonry structure or additional panels used to prevent movement etc. The use of cable ties, rope, tie wire etc. should not be used as a means of securing fence panels as these can easily be cut to allow unauthorised entry.
- Metal mesh panels are not to be laid flat to protect open excavations; they must always be erected and stabilised as per manufacturers' instructions.
- Where panels are to be clad with sheeting, netting, or large banners, a temporary works design and checking may be necessary.

Permissive Right of Way:

Current public route commencement will be inconvenient to the build route of the proposed site. The permissive right of way will be diverted, and sign posted – Traveling south on Mill Lane. Turning left onto Shearwater and left again onto bridle way to the rear of site as illustrated below:

1.5.7 Housekeeping

- The site boundary fence or hoarding is to be regularly checked to ensure it is maintained in good repair, has not fallen/blown over, provides adequate security against unauthorised access and is not damaged.
- Only authorised people are allowed on site - gates should be closed between deliveries.
- Vehicles and pedestrians are to be kept apart while they are moving around the site where practically possible. This is part of Lovell's PAVES policy.
- Foot paths and traffic routes are to be firm, levelled if rutted, stoned if muddy, gritted when icy.
- Walkways, stairs and work areas are to be kept clear and free from obstructions such as trailing cables, waste and unused materials.
- Cables, particularly on landings and along corridors, are to be managed so they do not present tripping hazards.
- Properly constructed access into plots is to be provided by avoiding steps greater than 150mm - suitably compacted aggregate ramps are preferred.
- Steps into site cabins are to be properly constructed.

- Work areas are to be kept as tidy as possible while the work's going on.

1.6 Issue & Revision

An electronic version of this Plan, incorporating Lovell's Project Management Plan (PMP), will be issued and held by the Development Coordinator and the assigned Project Manager. This plan will be maintained and updated regularly by the Project Team with assistance from the H&S dept. This will be in accordance with the implementation of the contract, or after any changes to regulations and / or corporate procedures. This CEMP provides a framework to manage the environmental issues associated with the Project, to ensure compliance with relevant client Environmental Policy Statements, and contractual, H&S and legal obligations. It is a bespoke plan designed to minimise our impact and ensure the best service through construction.

1.7 Responsibilities

The Contract Manager approves and supports this CEMP as the principal document demonstrating a planned and systematic approach to implementing environmental policy through an effective environmental management system.

- The Contract Manager is responsible for authorising and maintaining this document and ensuring it is implemented.
- The Contract Manager is responsible in ensuring it complies with legal and contractual amendments and ensures that all project personnel are aware of the contents of this CEMP and understand their role in fulfilling the project's obligations. They are responsible for ensuring that the client is informed of any amendments.
- The Environmental/Engineering Manager is responsible for ensuring it complies with all relevant environmental legal requirements and offering advice in best practice.

2.0 ENVIRONMENTAL RISK ASSESSMENT

2.1 Operational Control

Site management are responsible for ensuring all necessary environmental control measures identified within this plan are followed and implemented prior to start of any construction activities.

Pre-start meetings with contractors will assess arrangements contractors have provided for minimising waste. Surveyor and Contracts Manager are responsible for ensuring contractors have included waste controls within their site documentation and they sign the administration document before signing off the order.

The site induction, including frequent 'Toolbox Talks' will include environmental controls in place or necessary actions required.

2.2 Monitoring

Site management will undertake weekly recorded inspections to ensure relevant environmental control measures are appropriate, and controls are being complied with.

Site environmental compliance will also be monitored regularly by our health, safety and environment team. The inspection report will be discussed with site management, and any recommendations will be actioned as necessary, with the CEMP updated to reflect these changes.

2.3 Internal Communication

Communication of environmental issues within the project will be maintained through combined monthly project review meetings, chaired by the Project/Site Manager. The environmental section of the agenda for the monthly meetings will primarily address the future month's activities and will review events and actions arising from the previous month's activities.

Other items on the monthly agenda will include:

- Progress with consents
- Progress with Work Package Plans
- Public consultation
- Reporting of monitoring results
- Actions arising from site inspections, incidents, complaints and audits

- Planned work and risks associated with this Newsletters, bulletins, posters etc will be produced and displayed throughout site offices on a regular basis to raise awareness of current issues both within the Project team and throughout the local community.

It is recognised that benefits can be gained from close co-operation with the client, and other contractors in achieving best practice. Access shall be given to the client Representatives for carrying out audits and/or site inspections to monitor compliance with this CEMP. The Contract Manager and their team will ensure that meetings and discussions are carried out in a spirit of openness and co-operation to determine lessons learnt from any incident and, wherever practicable, to take action to mitigate similar risks.

2.4 Designated Responsibilities

Description	Duty holder	Frequency
Project Management Plan (PMP)	SM/CM	Initial compilation, reviewed regularly and updated as required during project development
Traffic Management Plan (TMP)	SM/CM	Prior to commencement – updated during project development
Traffic Management Co-ordination	SM/ASM	Implementation and monitoring of traffic management measures.
Emergency Plans	SM/CM	Prior to commencement – updated during project development
Incident Reporting	SM/CM /H&SM	As required
Site Induction	SM/ASM	Prior to individual's commencement on site – content updated to suit project development
Statutory Inspections and Registers	SM/ASM	Weekly/following adaptation/following event likely to affect strength and stability/following fall of material (Lovell operated plant only and all working platforms)
Welfare Provision	SM/ASM	Daily visual inspection

Permits to Work (All types)	SM/ASM	As required
Monitoring & Toolbox Talks	SM/ASM	Monitoring daily. Weekly recorded HSE inspection. Toolbox talks as necessary
Communication & Consultation	SM/ASM	Communication daily. Minuted meetings with workforce representatives as required.
Quality Issues	SM/ASM	Various stages of construction as works proceed
Fire Safety	SM/ASM	Prior to commencement – daily monitoring during project development, fire risk assessment updates
First Aid	SM/ASM	As required
Temporary Works	TWC/TWS	TWC to maintain Temporary Works register as required. TWS to issue permits to load/strike when appropriate and check adequacy of materials prior to erection. Refer to 4.01 Policy for full responsibilities.
Environmental Considerations	SM/ASM	Prior to commencement – daily monitoring during project development
Health & Safety File	SM/ASM/ CM	Relevant information collected monthly. Forwarded to Principal Designer as appropriate

Key: CM – Contracts Manager ASM – Assistant Site Manager

SM – Site Manager TWC – Temp Works Co-ordinator

TWS – Temp Works Supervisor

2.5 Good Practice Guidance

The construction phase groundworker will follow good environmental practice to minimise the risks of spillage, leakage etc with reference, but not limited, to the following documents:

- CIRIA C502 'Environmental Good Practice on Site'
- EA Pollution Prevention Guidelines:
- PPG6 – Working at construction and demolition sites
- PPG2 – Above ground oil storage tank

- PPG7 – The safe operation of refueling facilities.
- PPG21 – Incident Response Planning
- Northumbrian Water Services. 'Guideline for developers to Northumbrian Water requirements'

Lovell are aware that some of the EA PPG documents have been withdrawn from the gov.uk website. However, PPGs provided a summary of current UK guidance; the principles are still relevant and provide a useful, concise overview.

3.0 IDENTIFYING ENVIRONMENTAL IMPACTS

3.1 Local Environmental Issues

The table below provides a summary of typical pollutants that cause local environmental impacts to atmosphere, land and water:

Atmosphere	Land	Water
• Dust • Exhaust emissions • Gases or vapours • Odours • Noise • Light or visual amenity • Smoke • Radiation • Asbestos	• Oils and fuels • Chemicals • Lead • Waste and litter • Spillage of materials • Concrete • Asbestos	• Silt • Chemicals • Concrete • Contaminated water • Run-off • Effluent • Oils and fuels • Hazardous solid matter • Slurry

Following a review of construction activities, the following potential environmental impacts have been identified.

- Groundwater quality (low risk)
- Excavation
- Dust
- Noise and vibration
- Recycling/Disposal of waste
- Impact on Wildlife
- Fire

The assessment of risks associated with the above, and appropriate mitigation measures recommended are included in the following sections:

3.2 Groundwater Quality

3.2.1 Risk assessment

Risks posed by the development of this site are low. However, given the minor ramifications of a groundwater pollution event, it is still good practice to reduce these potential risks as per the sections below.

Careful consideration of site setup, compound location and storage of fuels etc. prior to commencement of site works will greatly reduce the potential for pollution incidents. Refer to Section 1.5 for compound details.

3.2.2 Plant & Equipment Maintenance

Prior to the mobilisation of any plant to site, the Principal Contractor must obtain servicing\maintenance records for all equipment and plant proposed for use on site from any sub-contractors. These records will be kept in the site office and made available for inspection as\when required by the Local Planning Authority, Environment Agency and\or Northumbrian Water.

All plant will be steam-cleaned off-site (e.g. in the hire company's yard) before mobilising to site to avoid any cross-contamination, and an inspection (primarily checking for leaks) must be carried out on site on the first day, and weekly thereafter for the duration of the works.

If a leak is detected, the faulty equipment/plant must be immediately taken out of service and removed from site. If the faulty equipment/plant cannot be demobilised immediately, it will be temporarily stored in the designated refuelling area. Faulty equipment/plant will not be kept on site for longer than 48 hours.

Outside of the normal hours of operation, plant and vehicles shall be parked or stored on bunded, impervious hardstanding with a capacity not less than 110% of the fuel/oil that can be stored or held within the vehicles, plant and machinery.

3.2.3 Oils, fuels & chemicals

Details of the size, location and design of the site compound, including how any potentially polluting materials will be stored to minimise the risk of pollution will be provided within this Construction Environmental Management Plan (CEMP).

Oils, Fuels and Chemicals (e.g. paints, lubricants etc) must have a designated storage area. These areas will be:

- Identified on the site Traffic Management Plan (as displayed within the site compound)

- Clearly identified with appropriate signage
- All hazardous substances kept on site during the construction phase must be stored in locked, secure and appropriately bunded compounds.
- Storage areas will be designed/located to prevent unauthorised interference and vandalism.

Static oil storage containers, of any capacity, will:

- Comply with EA documents: PPG2 - Above ground oil storage tanks, and PPG7 – The safe operation of refuelling facilities.
- Be no more than 2 years old at the time of installation.
- Be doubled-skinned with integral bunding and be of sufficient strength and integrity to ensure that they are unlikely to burst or leak.
- Be located on bunded, impervious hard standing with a capacity of not less than 110% of the largest tank, or largest combined volume of connected tanks located within the area of bunded, impervious hardstanding. All rainwater accumulating in the bund must be removed. This waste will need to be treated as hazardous if contaminated with oil.
- Be positioned so that they are not vulnerable to impact from vehicles.
- Not be positioned within 10 metres of any watercourse.
- Have valves and other ancillary equipment that can be locked and kept within the bund when not in use.
- Have hoses and fittings (for filling vehicles etc) that have a valve or tap which closes automatically when not in use. This must not be able to be fixed in the open position.

Plant Refuelling and Fuel Deliveries must:

- Only be carried out by authorised & trained operatives
- Only be carried out within the designated compound, with a base surfaced in impermeable material, by authorised trained persons
- Comply with guidance provided in Section 7.3 of the Environmental Agency document: PPG7 - The safe operation of refuelling facilities. No amount of fuel/oil greater than 10 litres shall be stored in a portable container.

With respect to the storage and use of other chemicals (quantities less than 200 litres):

- The chemical products to be utilised on site must be detailed in the Construction Phase Safety, Health & Environmental Plan, and their storage and use reviewed via an appropriate risk assessment
- All chemical products must be stored in a lockable container to prevent unauthorised discharge and use

With respect to the storage of Flammable Liquids and LPG:

- Storage Areas must have appropriate signage.
- Containers of Flammable liquids and LPG cylinders must be stored in suitable cages in open compounds which are securely fenced and shaded from the sun.
- Flammable liquids and LPG must not be stored together
- Where the storage of flammable liquids or LPG is necessary the quantity stored, must be kept to a minimum based on assessment and the facilities for storage.
- They must be stored at least 10 metres from any structure or temporary buildings. They can only be stored closer if the walls of any structure or temporary building have a 30-minute fire resistance.

3.2.4 Emergency Procedures in the Event of a Spill

In the event of a *significant* spill of fuel or any potentially hazardous liquid, the Site Manager will ***immediately*** notify:

- The Environment Agency – Tel. 0800 80 70 60 (24 hr)
- Northumbrian Water – Tel. 0800 393 084
- Lovell H&S Manager
- Morgan Sindall's appointed Site Engineer

A Spill Response Plan (SRP) has been prepared by the Lovell in advance of the works. The SRP provides information for managing potential spill incidents, including:

- Site Address
- Location of spill response equipment
- Information on trained and/or competent person(s) to use spill response equipment
- Emergency contact details including:
- Primary Contact (Lovell)
- Spill response contractor(s)
- EA 24-hour hotline
- Local EA office(s)
- Local Authority

A copy of the SRP will be kept in the site office and will always be readily accessible.

In advance of the work, the Principal Contractor has identified at least 3 potential emergency response contractors. The Principal Contractor ensure that all such specialist contractors are competent (i.e. they hold relevant professional qualifications and have a demonstrable track record of experience). Records to demonstrate these competencies will be kept in the site office and made

available for inspection as\when required by the Local Planning Authority, Environment Agency and\or Northumbrian Water.

The names and contact numbers of potential emergency response contractors will be clearly displayed in the site office.

The site must always have at least one person who is trained and competent to use spill response equipment on site during operational hours and a competent person who is contactable out of hours, in the event of pollution due to trespasser / vandalism. The competent person(s) will be clearly identified in the site office. The Principal Contractor will ensure that all site personnel are made aware of the content and requirements of the SRP and records are retained to verify this training has been provided.

Additionally, site personnel will be provided with spill response training (a Toolbox Talk) that:

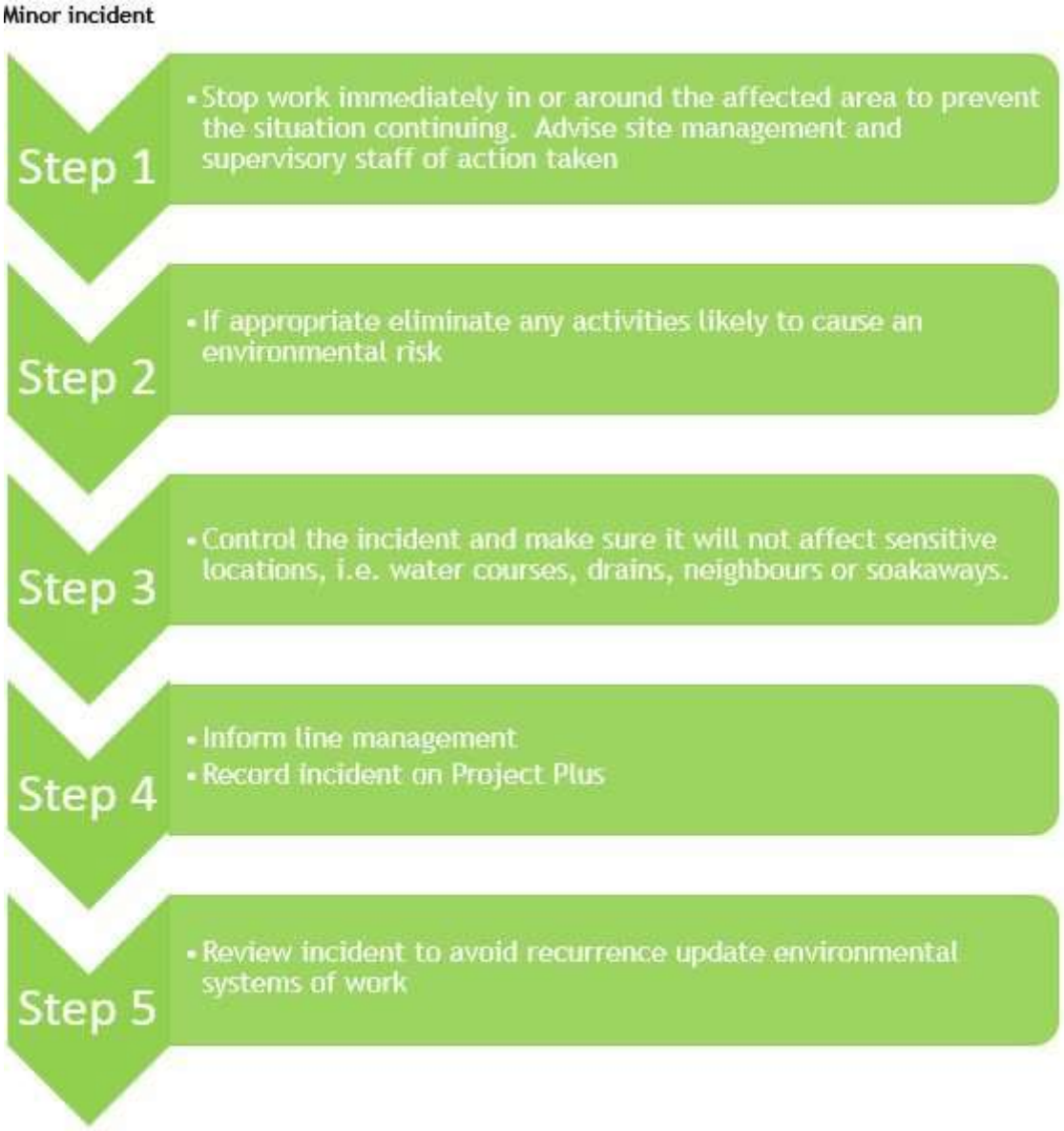
- Raises their awareness of the potential for harm to both personnel and the environment
- from materials held on-site.
- Raises their awareness of the sensitivity of the surrounding environment.
- Inform them who are the trained and competent spill response personnel.
- Inform them who is responsible for reporting the incident to the EA & NWL

Records to verify that this training has been provided will be retained in the site office for the duration of the project.

The following steps will be taken to manage a hazardous material spill on site:

- Assess release
- Isolate spilt materials
- Contain spilt materials
- Absorb spilt materials
- Dispose of waste materials
- Reorder spill response materials
- Record Incident

Major Incident (Emergency)



3.2.5 Groundwater Introduction

It is not recommended that monitoring boreholes are located on the site in order to determine background groundwater quality. This is because: (a) the presence of contamination within the ground is not a suitable warning system that spillage has occurred; and (b) such monitoring wells could provide a preferential pathway for spilt fuels etc direct to groundwater at depth in the ground (potentially bypassing any protective low permeability layers).

Further to the Spill Response Plan outlined above, remediation must be implemented swiftly to restrict any migration to ground. Following this action longer term risks associated with groundwater quality can be considered should groundwater monitors be required by Environmental Agency.

3.2.6 Groundwater Monitoring Scheme

Should the EA require additional monitoring after a spill, rather than installing monitoring wells with the site, a more appropriate means of validating clean-up of localised spillages would be to sample any shallow soils present around and beneath the spill (following excavation of any contaminated material) and analyse samples to confirm the absence of any relevant contaminants (most likely hydrocarbons, but determinants must reflect what has been spilt). Even in the locations where drift is absent at the site, a veneer of residual soil is present.

The findings of the validation testing will be reported to the Environment Agency and Northumbrian Water.

If following a spillage, and the implementation of emergency procedures, and following consultation with the Environment Agency, it is considered necessary to install monitoring wells, a minimum of three boreholes will be required. Prior to drilling monitoring wells, the design will be agreed with the Environment Agency and Northumbrian Water.

The proposed scope of works is likely to include, but not be limited to:

- Details of the number, location and design of ground water quality monitoring wells
- Details of the suite of determinants to be tested for and groundwater quality thresholds (based on Environmental Quality Standards). These are likely to comprise turbidity, conductivity, pH, speciated Total Petroleum Hydrocarbons and speciated Polycyclic Aromatic Hydrocarbons.
- Details of the frequency of testing
- Details on decommissioning

3.2.7 Temporary De-watering from Excavations to Surface Water

An environmental permit will usually be required if liquid or wastewater is to be discharged into surface water. However, a permit is ***not*** required if there is a short term, temporary discharge of uncontaminated water which is wholly or mainly rainwater, from an excavation to surface water (such as pumping rainwater out of excavations on site), and Lovell comply with all the following conditions:

The discharge must be:

- clean water, for example clear rainwater or infiltrated groundwater which has collected in the bottom of temporary excavations
- not result in water containing fine or coarse suspended solids (silty water) entering surface water

- not last more than 3 consecutive months (the activity may stop and restart but the clock does not restart) - if the activity is likely to go over 3 consecutive months, then we need to apply for a permit
- be made to surface water, such as a river, stream or the sea
- be under control of a method statement that minimizes the risk of pollution

The discharge must not:

- pollute surface water
- contain any chemical dosing agents, flocculants or coagulants
- be from a site which is contaminated by oil, metals, hydrocarbons, solvents or pesticides or other polluting substances
- result in the spread of non-native invasive species, parasites or disease
- cause flooding from surface water
- cause erosion of the banks or bed of the receiving watercourse
- contain concrete wash water even if it has been treated
- contain site drainage from surface areas such as haul roads, storage or working areas
- be from a site with naturally elevated concentrations of substances which exceed environmental quality standards
- be located within, or less than 500 metres upstream of:
  i. Sites of Special Scientific Interest
  ii. Special Areas of Conservation (SACs)
  iii. Special Protection Areas (SPAs)
  iv. candidate SACs, possible SACs, potential SPAs and sites of community importance
  v. internationally designated Ramsar sites
  vi. other nature conservation sites, such as ancient woodlands, local and national nature reserves
  vii. local wildlife sites

Normally the contractor must Contact the Environment Agency if the discharge rate is more than 10% of the dry weather flow (Q95 low flow) rate of the surface water. A high discharge rate may increase flood risk or have other local environmental consequences.

Lovell will need to apply for a bespoke permit if:

- the water discharge is from pumping out contaminated groundwater or water from contaminated land so it can be treated
- we cannot comply with the conditions in this RPS

- Dewatering or pumping out water that has gathered in an excavation does not require an abstraction licence if the water is to be disposed of solely to prevent interference with building operations. If however, the water is to be used for dust suppression or other activity on site, over 20m^3 will require an abstraction licence.

3.2.8 Special Precautions

This Construction Environmental Management Plan provides details, of the size, location and design (including how potentially polluting waste waters will be stored and\or disposed of) of all:

- Refuelling Area
- Concrete Wash Area
- Wheel wash Area

Drainage must be controlled and not be allowed to seep or wash away into the subsurface.

3.2.9 Refuelling Area

A designated refuelling will be located on bunded, impervious hardstand with a capacity of not less than 110% of the largest tank, or largest combined volume of connected tanks located within the bunded area. The purpose of this impervious, bunded area is to ensure that any spillages are contained, with no potential to run off to ground. See 1.5.2.

Consideration will be given to the erection of a 'roof' to minimise entry of rainwater onto the designated refuelling area.

Refuelling of handheld plant must also take place in this designated area.

3.2.10 Concrete Wash Area

Large volumes of concrete required for foundations etc. are expected to be delivered to site in trucks (via mixers), which are then pumped into the storage silos. After the concrete has been discharged, the mixer hose is given a rinsing on site, usually followed by a more thorough clean-out once off-site, back at the concrete depot.

On-site rinsing of pump hoses typically generates a relatively small volume of washout water into a portable mini-skip (via telehandler) and common site practice is to discharge this water into the foundation excavation on top of the poured concrete foundation, where it initially sits as a thin layer (<10mm) prior to evaporation\curing.

A designated wash area will be set up for any surplus mixer truck concrete and\or smaller volumes generated by any portable mixers etc. The wash area will either comprise an area of bunded, impervious hardstand, or be designed in a way to ensure wash waters are captured and are not allowed to infiltrate to ground. Again, consideration will be given to the erection of a 'roof' to minimise entry of rainwater onto the designated wash area.

The bunded area will have a sump, and all wash waters (and any rainwater) accumulating in this sump must be tankered off-site. Accidental entry into the sump must be prevented by placement of a suitably robust perimeter fence and steel grille.

Water level in the sump must be monitored at the beginning of each working shift, and a tanker booked to empty the sump within 24 hours of water in the sump reaching the 90% full level.

Given these implications, consideration is currently ongoing to use of mortar silos instead since these minimise water use and mortar wastage.

3.2.11 Wheel Wash Area

A wheel washing facility will be installed at the construction site exit to mitigate any mud from significant plant movement on\off site entrances. A high-pressure hose which can effectively clean the underbody, wheel arches, and wheels will be provided.

It is not anticipated that this will contain contaminated materials as any remediation will have taken place prior to general site works. This vehicular movement of the telehandler onto the public highway to the compound before & after the working day. This will be under constant review, and should it be required, a highways road sweeper will be employed to regularly clean site access areas.

As part of their package, the groundworkers will provide regular road cleaning on the roads as a matter of course. After groundworks is complete, Lovell will monitor any mud onto Mill Lane. All existing highways roads within the site boundary will be inaccessible to public or remote from site traffic thus mud should not affect the public.

3.2.13 Foundation Excavations, Utility & other Trenches

The shallow natural stratum at the site varies, typically comprising cohesive drift, made ground and residual soil. It is expected that foundations, utility and service trenches will all likely extend to rockhead.

While exposed, foundation trenches may present a migration pathway to groundwater. However, there is very low risk that any undesirable material (suspended solids, concrete etc.) will enter and water system.

Trenches will not be left open for longer than is necessary and no fuels, solvents, silty water should be stored within 10m of open trenches.

Foundation and services trenches will not be excavated during periods of prolonged or heavy rainfall, if the rainfall is generating surface water run-off (or simply being absorbed into near-surface soils) to prevent silty water entering the Limestone bedrock.

3.2.14 New Sewerage Infrastructure

The design team have demonstrated that there is an impermeable geological feature, such as a consistent clay layer, in excess of 1.0m deep extending beneath level of the deepest foul sewers, and present beneath the entire site. Therefore, no special measures are necessary. Ordinarily, protection measures must be applied to all new shared foul sewers. They are not required for drains serving only a single dwelling (because leakage from a private sewer has limited potential to impact groundwater quality). It has also been demonstrated that existing pipework does not need re-lining.

3.2.15 Surface Water Infrastructure

Typically, surface water drainage systems do not require re-lining of pipes. At Laurel Gate, this is also the case and has not been suggested by Northumbrian Water within the approved Section 104 application.

Any extraction of water from surface water or piped mains (standpipe) requires consent from either Environment Agency (EA) Natural Resources Wales (NRW), or Scottish Environment Protection Agency (SEPA), or the relevant water authority respectively.

All discharges to foul water drainage systems require discharge consent from the local water authority and the consent conditions will be strictly complied with. A Permit to discharge (HSE 028) is to be used for this purpose.

3.2.16 Unexpected Ground Conditions

Site investigation completed to date suggests a complete absence of drift across the entire site. Special precautions will not be required during construction phase, and it is unlikely that any unexpected ground conditions will be encountered that will alter the current recommendations. However, if any amendments are necessary to the CEMP due to unexpected ground conditions i.e.

changes in foundation solution, changes to the agreed infrastructure design, the Local Planning Authority, Environment Agency and\or Northumbrian Water will be notified and changes agreed in writing prior to implementation on site.

3.2.17 Ground Contaminants

In order to appraise risk of ground contaminants, several site investigations were carried out and a remediation strategy was formed. This can be viewed in the submitted SI Report but generally includes:

- Effective contact with all relevant regulatory bodies to establish and obtain approvals prior to any work commencing.
- Competent contractors to be employed to treat the identified contaminated land in accordance with the approved remediation strategy.
- Contaminated areas will be clearly signed and adequately fenced off to avoid unauthorised access and inadvertent spread of contamination across the site.
- Following treatment, where materials are still classed as waste, their use will require an environmental permit or registered exemption. CL:AIRE can be used to ensure that contaminated materials are treated and managed so they receive an 'end of waste' status.
- Stockpiling of contaminated materials will be avoided where possible. When unavoidable, materials will be placed on impervious ground to prevent contaminates seeping into the ground and will also be covered to avoid wind-blown contamination or run-off to drainage systems and water courses.
- Removal of waste off site for treatment elsewhere or disposal will comply with the duty of care, including provision of waste transfer or consignment documentation as appropriate.
- Vehicles carrying contaminated materials off site are to be appropriately sheeted and are to pass through a wheel-wash facility to avoid contamination of the public highway.
- Personnel involved in the treatment of contaminated land will be made aware of the risks associated with the particular contaminants and will wear relevant PPE. Depending on the level of risk, a decontamination unit may be required to prevent the spread of contaminants to clean areas of the site.

3.2.18 Silt Management Plan

Surface water generated on site must not be discharged to ground, silty water can block groundwater flow paths or migrate along fractures and cause sedimentation in potable abstraction wells. Discharge of silty water is considered pollution under the Environmental Permitting Regulations 2010.

Mitigation measures to deal with the production of silty water, especially during wet weather will be sent out in the Silt Management Plan (SMP).

Any surface water holding area must be lined and silty water pumped for disposal off site.

Lovell will ensure implementation of the following measures to increase awareness of site personnel:

- Provide detailed site-based awareness training (Toolbox Talk) on silt management and protection for all site staff, including groundworkers
- Include a section relating to silt protection within site induction folder
- Undertake weekly site audit and obtain support from a suitably qualified Environmental Consultant if\when required

Protection measures that will be considered to manage surface run-off following top-soil strip include:

- Placement of silt fencing (Hy-Tek Terrastop™ or similar) around site boundaries at low points
- Placement of soil bunds with straw or silt fence 'gates' to control flow of surface water runoff
- Minimise the movement of plant on and off roads to prevent the tracking of excess soil onto roads and highways (planning of working day)
- Provision of a road sweeper on site during periods of wet weather
- Construction of speed ramps to slow traffic down and also to help direct surface water to collection areas to enable a controlled discharge
- The placement of straw and suitable geotextile in all gullies during construction (to be inspected and replaced when necessary)
- The placement of a suitable geotextile layer within all manholes during construction (to be inspected and replaced when necessary)
- The installation of hardstanding areas to the front of all plots to enable 'clean' forklift access
- The placement of topsoil at the earliest opportunity to control surface run-off from completed areas

The following monitoring procedures will be carried out on a weekly basis by the Site Manager to review the measures listed above. A record of the monitoring undertaken will be kept in the site office and made available for inspection as\when required by the Local Planning Authority, Environment Agency and\or Northumbrian Water:

- Inspection of all gullies, silt fencing, hay bales and manholes
- Replacement of silt fencing, suitable geotextile and hay bales as required

3.3 Excavation

3.3.1 General Methodology

The moving of all earthworks on site has already been by mechanical means as per Homes England remediation strategy. The localised stripping of topsoil and sub soil will be carried out by a dozer and a 360 excavator and dumper in a safe manner.

3.3.2 Dust Monitoring

Dust monitoring will be conducted daily and acted upon should it be deemed necessary. Dust will be kept to a minimum with site water suppression.

3.3.3 Stockpiling

All stockpiles of topsoil will be located in a suitably designated area on site and will be bunded and sealed to minimise dust and ready to be reused on site as and when needed. It will be the same for all subsoil; it will be allocated a suitable area, bunded and sealed, ready for reuse on site when needed. Topsoil and subsoil will be tested to ensure reuse on site. Any surplus material will be taken off site to all licenced tips.

It may be necessary to cover stockpiles in times of heavy rainfall to prevent excessive silty run off.

3.4 Dust

Dust is a hazard that could cause air pollution affecting operatives and nearby residents. Risk and potential have been assessed as follows:

- Risk – Low
- Potential – Moderate

3.4.1 Risk Reduction

Firstly, the risks linked to the work and materials has been assessed. High dust levels are caused by one or more of the following:

- **Task-** the more energy the work involves, the bigger the risk. High-energy tools like cut-off saws, grinders and grit blasters produce a lot of dust in a very short time.
- **Work area-** the more enclosed a space, the more dust will build up. However, Lovell will not assume that dust levels will be low when working outside with high-energy tools.
- **Time-** the longer the work takes the more dust there will be.
- **Frequency-** regularly doing the same workday after day increases the risks.

Secondly, control the risks by various principles:

- Stop or reduce the dust before work starts
- Look at ways of stopping or reducing the amount of dust you might make.
- Use different materials
- Use less powerful tools or other work methods. For example, you could use e.g.:
    i. the right size of building materials so less cutting or preparation is needed

ii. silica-free abrasives to reduce the risks when blasting.
iii. a less powerful tool – e.g. a block splitter instead of a cut-off saw.
iv. a different method of work altogether – e.g. a direct fastening system
v. time – the longer the work takes the more dust there will be.
vi. Control of Dust- Even if you stop some dust this way, you may do other work that could still produce high dust levels.

3.4.2 Risk Management

In these cases in Section 3.3.2, there will inevitably be residual risk. The most important action is to stop the dust getting into the air. There are two main ways of doing this:

- **Water -** water damps down dust clouds. However, it needs to be used correctly. This means enough water supplied at the right levels for the whole time that the work is being done.
- **On-tool extraction -** removes dust as it is being produced. It is a type of local exhaust ventilation (LEV) system that fits directly onto the tool. This 'system' consists of several individual parts – the tool, capturing hood, extraction unit and tubing. Use an extraction unit to the correct specification (i.e. H (High) M (Medium) or L (Low) Class filter unit). Don't just use a general commercial vacuum.

Table 1 Controls for common high-risk tasks

Task	Eliminate or limit the dust by:	Control the dust by using:
Cutting concrete kerbs, blocks and paving with a cut-off saw	■ Limiting the number of cuts during design/layout ■ Using lower energy equipment like block splitters ■ Getting material cut off site and delivered	■ Water suppression and ■ RPE* with an APF of 20
Chasing concrete and raking mortar	■ Limiting the need for chasing at the design/layout stage ■ Using a work method that limits/does not need chasing, like over-covering cables	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20 – consider powered RPE for longer duration work
Cutting roofing tiles with a cut-off saw	■ Hand cutting natural/fibre cement slates and other tiles where possible ■ Using ½ and 1½ tiles ■ Correct setting out/design ■ Minimising valleys/using dry valleys	■ Water suppression and ■ A dedicated cutting area with scaffold board protection and ■ RPE* with an APF of 20
Scabbling or grinding with hand-held tools	■ Specifying architectural finishes that do not need scabbling ■ Using (ultra) high-pressure water jetting ■ Using chemical retarders and pressure washing ■ Casting in proprietary joint formers, eg mesh formwork	■ Where possible use on-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Occasional short-duration drilling with hand-held rotary power tools	■ Limiting the number of holes during design/planning ■ Using direct fastening or screws	■ Where possible use equipment that stops dust getting into the air. The larger the holes the better this needs to be. Options range from: – drilling through a dust 'collector' or using cordless extraction attached to the drill (for smaller drill bits) or – on-tool extraction using an H or M Class extraction unit ■ Otherwise use RPE* with an APF of 20
Drilling holes with hand-held rotary power tools as a 'main activity'	■ Limiting the number of holes during design/planning ■ Using direct fastening or screws	■ Where possible on-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Dry coring	■ Limiting the number of holes during design/planning	■ On-tool extraction using an H or M Class extraction unit ■ Longer duration work will also need RPE.* Use an APF of 20
Wet coring	■ Limiting the number of holes during design/planning	■ Water suppression ■ Long periods of wet coring in enclosed spaces may also need RPE.* Use an APF of 20
Using a hand-held breaker in enclosed spaces with limited ventilation	■ Limiting the amount of breaking during design/planning stage ■ Bursting, crushing, cutting, sawing or other techniques ■ Remote controlled demolition	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20

Task	Eliminate or limit the dust by:	Control the dust by using:
Abrasive pressure blasting	■ Using a different method of work like (ultra) high-pressure water jetting ■ Using 'silica free' abrasive material	■ Wet or vacuum blasting and ■ RPE* will depend on silica content of building materials, blasting equipment and length of work: – In most instances use RPE with an APF of 40 – Use RPE with an APF of 20 for lower risk work (including the 'potman' nearby) ■ Shrouds or screens to contain the flying abrasive ■ Certain restricted/enclosed working places may also need general mechanical ventilation
Soft strip demolition	■ Carefully planning the work ■ Limiting the number of people that need to be in the work area ■ Screening off areas to prevent dust spreading	■ Use water suppression or on-tool extraction for those tasks where it is possible and ■ RPE* with an APF of 20 – consider powered RPE for longer duration work ■ Enclosed spaces may also need general mechanical ventilation to remove dusty air
Removing small rubble, dust and debris	■ Limiting waste materials during design/ planning ■ Considering where waste material is created and how frequently it needs removing ■ Using the correct dust controls when making rubble/debris	■ Damping down and using a brush, shovel and bucket for minor/small 'one-off' amounts Or for regular removal/site cleaning: ■ Water spray for damping down ■ Rake, shovel and bucket/wheelbarrow to remove larger pieces ■ Covered chutes and skips where needed ■ Vacuum attachments fitted to an H or M Class extraction unit ■ RPE* with an APF of 20 depending upon location, duration and type of work
Cutting wood with power tools	■ Ordering pre-cut materials ■ Using dedicated cutting areas to minimise spread	■ On-tool extraction using an H or M Class extraction unit ■ RPE* with an APF of 20 in most situations
Sanding wood with power tools	■ Using 'pre-finished' materials	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Sanding plasterboard jointing	■ Using other finishes/systems ■ Select boards with tapered edges to limit finishing needed	■ On-tool extraction using an H, M, or L Class extraction unit

After employing these protocols, minimising the ***effects*** of dust to staff will also be essential. This will be done in several ways:

- Respiratory protection (RPE) will be provided as well. The RPE will be:
  i. Adequate for the amount and type of dust – Respiratory Protective Equipment has an assigned protection factor (APF) which shows how much protection it gives the wearer. The general level for construction dust is an APF of 20. This means the wearer only breathes one twentieth of the amount of dust in the air.
  ii. Suitable for the work – disposable masks or half masks can become uncomfortable to wear for long periods. Powered RPE helps minimise this. Consider it when people are working for more than an hour without a break.
  iii. Compatible with other items of protective equipment.

iv. Fits the user. Face fit testing is needed for tightfitting masks.
v. Worn correctly. Anyone using tight-fitting masks also needs to be clean shaven.

- Limiting the number of people near work
- Rotating those doing the task.
- Enclosing the work to stop dust escaping.
- Use sheeting or temporary screens.
- General mechanical ventilation to remove dusty air from the work area (e.g. in enclosed spaces such as indoors).
- Selecting work clothes that do not keep hold of the dust.
- Educating staff via Toolbox Talks about:
  i. dust risks and how this can harm their health.
  ii. how to use the dust controls and check that they are working.
  iii. how to maintain and clean equipment.
  iv. how to use and look after RPE and other personal protective equipment (PPE).
  v. What to do if something goes wrong.
- Reviewing the controls regularly by:
  i. Having procedures to ensure that work is done in the right way.
  ii. checking controls are effective. Does the work still seem dusty? You might need to carry out dust exposure monitoring.
  iii. involving workers. They can help identify problems and find solutions.
- Maintaining equipment:
  i. Follow instructions in maintenance manuals.
  ii. Regularly look for signs of damage & make repairs.
  iii. replace disposable masks in line with manufacturer's recommendations.
  iv. properly clean, store, and maintain non-disposable RPE.
  v. Change RPE filters as recommended by the supplier.
  vi. carry out a thorough examination and test of any on-tool extraction system at least every 14 months.
- Supervising workers. Make sure they use the controls provided:
  i. follow the correct work method.
  ii. attend any health surveillance where it is needed

3.5 Noise & Vibration

This section presents noise and vibration effects that could arise from the construction, operation and decommissioning of the proposed development which affect local receptors, namely the closest residents are a small residential estate with 10 dwellings opposite the site located at a northerly

direction approx. 30m in distance from proposed site location. Approx 100m in southerly direction is an existing residential estate. Risk and potential have been assessed as follows:

Risk – Low

Potential – Low

The scheme is designed to utilise Vibro Pile foundations due to the makeup of the current soil make up. Surrounding residence will be notified prior to any construction works via a letter drop informing of the proposed times of the work. Noise Assessments will be completed by the site team to monitor noise levels. Acoustic fencing will also be erected around operation to ensure noise pollution is kept to a minimum.

3.5.1 Risk Management

Lovell's policy will be to first think about how to remove the loud noise altogether. If that is not possible, we will attempt to control the noise at source, by considering & reorganising working patterns. We will also take measures to protect individual workers if you need to. The general approach will be:

- Use a different, quieter process or quieter equipment, e.g.:
  i. Can you do the work in some other quieter way?
  ii. Can you replace whatever is causing the noise with something that is less noisy?
  iii. Introduce a low noise purchasing policy for machinery and equipment.
- Introduce engineering controls:
  i. Avoid metal-on-metal impacts, e.g. line chutes with abrasion-resistant rubber, and reduce drop heights.
  ii. Vibrating machine panels can be a source of noise - add material to reduce vibration ('damping').
  iii. Isolate vibrating machinery or components from their surroundings, e.g. with antivibration mounts or flexible couplings.
  iv. Fit silencers to air exhausts and blowing nozzles.
- Modify the paths by which the noise travels through the air to the people exposed, e.g.:
- Erect enclosures around machines to reduce the amount of noise emitted into the workplace or environment.
- Use barriers and screens to block the direct path of sound.
- Position noise sources further away from workers & the immediate residents.
- Design and lay out the workplace for low noise emission, e.g.:
  i. Use absorptive materials within the building to reduce reflected sound, e.g. open cell foam or mineral wool.
  ii. Keep noisy machinery and processes away from quieter areas.

iii. Design the workflow to keep noisy machinery out of areas where people spend most of their time.
iv. Limit the time spent in noisy areas - every halving of the time spent in a noisy area will reduce noise exposure by 3dB.
v. All site plant will operate within prescribed working hours of the day.

- Proper & regular maintenance of machinery & equipment will be essential to minimise noise from older, deteriorated equipment.
- Toolbox talks with operators will highlight awareness of changes in noise levels from equipment due to faulty or worn parts.

3.5.2 Working Hours

Site hours are from 8.00am to 18.00pm Monday to Friday and 8.00am to 13.00pm on Saturday. Working outside of these hours is not permitted unless by prior agreement. No working on Sundays and/or Public/Bank holidays.

Competent Lovell supervision must be present at all times, including during agreed out of hours working. Competent contractor supervision is to be provided in accordance with our 'Trade Supervisor to Worker' ratios requirement.

3.5.3 Noise Mitigation Compliance

Lovell will comply to the following documents throughout the construction period:

- **Control Pollution Act (1974)** Sections 60, 61 and 72
- **Environmental Protection Act (1990)** Sections 60 & 61
- **BS 5228 (Parts 1-4)** Noise and vibration control on construction and open sites.
- **BS 4142 (2014)** Methods for rating and assessing industrial and commercial sound
- **BS 6472 (1992)** Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz)
- **BS 7385 Part 2 (1993)** Evaluation and measurement for vibration in buildings Part 2. Guide to damage levels from ground-borne vibration.

3.5.4 General Noise Mitigation Measures

The most sensitive site is the current residential estate that compromises of 10 dwellings directly opposite the proposed site on Mill Lane. The general noise mitigation measures will be:

- Residence to be informed of works via letter drop
- Vibro Stone Piling to be conducted within site times
- Acoustic fencing to be erected around operation (percussive machinery) preventing noise to travel.
- Noise assessments to be completed to monitor noise levels.

Should Lovell deem the site to be too noisy or if there are any public complaints from adjacent neighbours, Lovell will investigate maximum noise mitigation levels for construction equipment, plant and vehicles when measured 3 meters from the facade (free field) of any noise-sensitive property, such as the current residential estate opposite the proposed site on Mill Lane. This monitoring shall not exceed the following levels as monitored in accordance with BS 5228:2009 part 1:

- LAeq (1 hour) 67 dB between 07:30 and 18:00 (including in the normal working hours)
- LAeq (1 hour) 57 dB between 18:00 and 22:00 (should DCC permit be granted)
- LAeq (5 minutes) 37 dB between 22:00 and 07:30 (should DCC permit be granted)

If noise at a sensitive receptor, such as residential, is likely to exceed the levels stated above, the sensitive receptor and the Local Planning Authority will be pre-notified in writing at least 5 working days prior to work commencing, with the following information:

- Site Location
- Duration of site operation, including schedule of operations likely to cause noise and their hours of work
- Noise characteristics
- Details of site operator community liaison for community assurance and managing complaints

Lovell can confirm in this particular development, we are not currently aware of any working practices that would result in the creation of noise at this level or beyond. We also significantly exceed the 3 metre distance from noise sensitive properties in all instances.

All excavations will be by midi-sized excavators (up to 10 tonnes). These will be within the site and not permitted on the current roads whereby dirt and road noise would be prevalent. No large plant (10 tonnes +) will be used as all large-scale mitigation and earthworks has been carried out by Homes England previously.

Lovell will also consider the smaller generated noise in the following ways:

- Include noise and vibration considerations in method statements for construction activities,
- Address operational noise and vibration issues in design risk assessments.
- The site management will maintain regular contact with those more immediate residents, and possibly Environmental Health Officers to keep them informed of the programmed works activities.

The following measures for management and mitigation of noise will be implemented:

- Selection of silenced plant and equipment,
- Compliance with agreed hours of work.

- Machines in intermittent use will be shut down in the intervening periods between work or throttled down to minimum.
- Plant will be maintained in a good and workmanlike condition so that extraneous noise from mechanical vibration, creaking and squeaking is reduced to a minimum.
- Care will be taken when loading and unloading vehicles or moving materials etc. to reduce impact noise.
- Select quieter equipment or different, quieter processes where possible.
- Use screens, barriers, enclosures and absorbent materials to reduce the noise where possible.
- Limit the time people spend in noisy areas/activities.
- Suitable hearing protection should be provided where noise cannot be controlled as above; choose a suitable protection factor – sufficient to eliminate risks from noise but not so much protection that wearers become isolated; consider the comfort and hygiene and ensure compatibility with other protective equipment.

3.5.5 Public Vibration Mitigation Measures

Wherever possible, avoid exposure to vibration by considering alternative ways of working which eliminates the use of vibrating equipment altogether. If this is not possible, reduce the risk by minimising the level of vibration and limiting exposure time. This has been done with the removal of concrete driven piling within this scheme.

The choice of excavator has been chosen based on the vibration rating (in mm/s) for each piece of large-scale equipment. The supplier or manufacturer can provide this information and use the HAVS calculator and ready reckoner to assist in the groundworkers' options on excavators. In the case of Laurel Gate, all excavations will be by midi-sized excavators (up to 10 tonnes).

The maximum level of vibration at construction sites will be required to meet the criterion set out in BS 5228-2:2009 as 0.3mm/s. Vibration levels which have the potential to cause building damage will not be tolerated. If vibration at a sensitive receptor is necessary, such as by neighboring properties and it is suggested that it is likely to exceed 0.3mm/s, the sensitive receptor and the Local Planning Authority must be pre-notified, in writing, at least 5 full working days prior to work commencing.

We confirm in this particular development, Lovell are not currently aware of any working practices that would result in the creation of vibration at this level. No further sensitive receptors are considered to apply to the development. Any required monitoring of noise and vibration will be undertaken by a suitably qualified operative, for example someone who holds the Institute of

Acoustics (IOA) certificate of competence. Vibration will be measured in accordance BS 5228:2009 part 2.

3.5.6 Noise & Vibration on Personnel

The following minor items will also be employed by Lovell to mitigate personal noise & vibration issues:

- Provide information, instruction and training regarding the duration of use for vibrating equipment, taking account of manufacturers' recommendations, daily exposure limits and informing of the exposure limit value (ELV). Use the HAVS calculator and ready reckoner to assist.
- Use suitable low vibration tools and anti-vibration accessories.
- Low vibration is not the only answer, however, a higher vibrating tool that does the job in half the time ***may*** be the best option.
- Use the right tool for each job to do the job more quickly and expose users to less vibration.
- Check tools before use to make sure they have been properly maintained and repaired to avoid increased vibration caused by faults or general wear.
- Keep cutting tools sharp so they remain efficient.
- Reduce the amount of time used on a tool in one go, by doing other jobs in between.
- Avoid gripping or forcing a tool or work piece more than necessary.
- Consider the materials being worked on as harder materials can present a higher risk.
- Store vibrating tools so that they do not have very cold handles or grips when next used.
- Encourage good blood circulation by instructing users to keep warm and dry, e.g. wear warm waterproof clothing, giving up or cutting down on smoking as this reduces blood flow, and massaging and exercising fingers during work breaks.
- Instruct users to report any health problems to their supervisor promptly.
- Health surveillance is to be provided to vibration exposed individuals where they are likely to be regularly exposed to the exposure action value (EAV). Use the HAVS calculator and ready reckoner to assist.

3.6 Fire

Fire, and associated smoke, is a hazard that could cause air pollution affecting operatives and nearby residents. It can also have significant carbon run-off issues should extinguishing be required. Risk and potential have been assessed as follows:

Risk – Low

Potential – Moderate

3.6.1 Risk Management

- The Fire and Rescue Service (FRS) must be contacted at the commencement of the construction phase to agree water supplies and to discuss any potential situation that may

require specialist rescue arrangements if their maximum reach is 30m. They should also be invited to carry out regular familiarisation visits where appropriate to review access, water supplies, firefighting arrangements etc.

- Suitable and sufficient arrangements shall be prepared for dealing with any foreseeable emergency and shall include necessary evacuation measures. A suitable number of signed emergency routes and exits shall be provided to enable any person to reach a place of safety quickly in the event of danger. It will also assist fire fighter pathways and create more efficient firefighting.
- An emergency plan will be prepared for this site and will be made available before work starts. The plan will be kept up to date and be appropriate for changing site conditions.
- Locations of fire points, assembly points, spill kit and means of warning will be detailed on a site layout plan, once on site, which will be displayed on the site office notice board.
- The requirements of the site emergency plan will be made known to all persons as part of their site induction training.
- Appointment of a specific site-based operative to carry out fire marshalling.
- The emergency contacts notice, emergency plan and fire action notices for this project shown on the following pages will be displayed on the site notice board and other pertinent locations throughout the site.

3.6.2 Fire Marshalling

The appointed site fire/emergency marshal is identified within the management team section of this plan. The duties of the fire/emergency marshal are as follows:

- Check the fire precaution rules are observed and that the general fire precautions remain adequate, available and in good order including escape routes and fire alarms regularly checked, fire drills carried out in accordance with this PMP etc.
- Where appropriate, liaison with the occupiers of any shared premises.
- To ensure the alarm has been raised.
- Contact the relevant emergency services.
- Turn off mobile plant and equipment and shut any emergency valves if safe to do so.
- Extinguish the fire if safe to do so with the appropriate equipment provided.
- Implement the use of the spill kit.
- Ensure all people have evacuated the premises/site.
- Take roll call from the Site attendance registers.
- Meet and liaise with emergency services, providing information to them on access issues, missing persons, and any special hazards – a copy of the site layout plan detailing flammable substances storage and location is to be kept with the site attendance registers to inform the emergency services.

- Confirm safe return to premises/site.

Emergency Safety Plan					
Site address:	**ADDRESS: Mill Lane, Whitburn SR6 7BF**				
Fire Marshal:	TBC				
Deputy:	TBC				
Means of raising alarm:	Via Cygnus wireless Alarm system				
Location of alarm(s):	TBC In accordance with fire risk assessment.				
Location of assembly points:	Adjacent to site compound – To be confirmed by fire risk assessment				
Firefighting point location(s):	TBC upon completion of fire risk assessment				
Spill kit location:	At Fuel store tbc				
Review Dates:					

3.6.3 Fire Emergency Plan

The following is to be included on the emergency plan site layout drawing.

- Relevant site-specific fire risk assessment findings
- Fire points and alarms – reference to be made to the Lovell site fire provisions document
- Fire escape routes & exits – (position of protected shaft and lifts)
- Fire engine access and turning
- Assembly point
- Hydrant or water source
- Special hazards – (including temporary holes in floor slabs)
- Temporary buildings

- Spill kits
- Fixed plant showing emergency valves/shut offs
- Flammable stores inside buildings
- Flammable store outside buildings
- Designated smoking areas
- Waste disposal areas

Consideration will also be given to the following:

- Contract documents (Pre-construction information etc.)
- Existing ground e.g. methane build up or similar hazards.
- Existing buildings e.g. highly flammable structure or contents, especially insulation in confined spaces.
- Activities adjacent to the site e.g. proximity of the petrol station, chemicals, public areas etc.
- Any high risk new or temporary materials e.g. adhesives, paints, large stores of LPG.
- Any high-risk activity on site e.g. welding, burning, gas cutting and angle grinding
- Vandalism Risks/Arson
- Site location e.g. lack of hydrants or other water supply, restricted access to site or adjacent buildings.
- Temporary removal of fire or smoke stops and isolation/covering of fire detection systems - alternative arrangements should be detailed below:
- For environmental spill and incident control procedures, see Environmental section of this PMP.

The Fire Rescue Service must be notified if any of the following circumstances apply or will apply:

- Fire engine access is not possible to within 45m of all parts of the site for vehicles of 17 tonnes, 4m wide x 4m high with appropriate turning bays.
- Fire Engine access to other properties is restricted during construction operations.
- Site access points are not immediately apparent

3.6.4 Escape Route Signage

- All escape route signage is to be prominently displayed.
- Changes in floor level should be highlighted as appropriate. In addition, escape lighting is to be installed and maintained in underground or windowless buildings, stairs without natural, borrowed or spill lighting, internal corridors without borrowed light and on high-risk projects where work continues outside daylight hours.

3.6.5 Access/Egress

- When fitting ironmongery, ensure access is always available in case of emergency evacuation i.e. not leaving latches in situ without levers fitted etc.
- Self-closing fire-resistant doors must always remain closed once fitted- overhead closers must be fitted immediately following installation of the door where applicable.

3.6.5 Fireproof Buildings

- Fireproof temporary buildings must have adequate emergency exit provision

3.6.6 Automatic Detection & Alarm Systems

- Automatic detection to be provided in all welfare accommodation linked to the site fire alarm system. Suitable fire detection systems are to be used on the site where appropriate referencing the Lovell site fire provision document.
- If units are to be double stacked, access doors will be arranged at opposite sides to assist escape from uppermost unit wherever possible.
- The alarm system for this project will be Cygnus wireless alarm

3.6.7 Smoking

- Refer to site rules and welfare arrangements. Where suitably situated designated smoking areas are provided, a suitable means of extinguishing smoking materials must be provided i.e. buckets of sand, which must be regularly maintained.

3.6.8 Space Beneath Buildings

- The space beneath temporary buildings will be kept to a minimum, kept free of rubbish, weeds, etc., kept free of stored materials and where appropriate enclosed with a protective skirt.

3.6.9 Heating and Cooking

- Wall fixed heaters will be used – freestanding electric heaters are not permitted. Microwave ovens will be provided within the canteen facility. Adequate ventilation shall be provided.

3.6.10 Combustible Materials including Flammable Materials, Liquids & LPG

- All combustible materials will be kept away from temporary accommodation units; buildings being constructed and all escape routes.
- Consideration will be given to use of less combustible or fire resisting materials.

- The use of acetylene on Lovell projects is to be eliminated whenever possible and alternative methods of cutting and welding should be used.
- Where its use is unavoidable, the number of cylinders is to be kept to a minimum. Site management must be informed of its use and a dedicated risk assessment and enhanced hot works permit is to be produced, reviewed and implemented.
- Storage arrangements are as follows: (empty and full containers are to be separated in secure cages). **Note:** Storage of acetylene cylinders on Lovell projects or premises is not permitted, they are to be removed as soon as their use is complete.

3.6.11 Temporary Electrics

- The site temporary installation is to be inspected every 3 months max. (Temporary electric supply to the units)
- Site office unit permanent wiring - 12 months max. (Consumer unit and hard wiring within the units)
- Site office equipment fitted with plugs – each time a site is established or every 12 months whichever is soonest.
- On site tools and equipment (Lovell and contractor owned) – PAT 3 months max.
- Halogen lighting is not permitted on site; alternatives are to be used such as protected fluorescent lighting.

3.6.12 Hot Works

- Hot works include all flame, heat and spark producing activities such as soldering, welding and cutting, grinding, applying weather coatings such as felt, asphalt etc.
- Alternative methods to hot work should be adopted where possible.
- When there is no alternative to hot work then, if possible, hot work should be undertaken in a dedicated area away from the area of work or storage of materials.
- All hot work must be subject to a hot work permit once fitting out work has commenced on site and in all buildings.
- All hot work will be completed at least one hour before daily site closure to ensure no latent fires start.
- Before starting hot work, the area must be cleared of all loose combustible material and, if work is to take place on one side of a wall or partition or ceiling etc., the opposite side must be examined to ensure no combustible material will be ignited by conducted heat.
- A suitable number of appropriate fire extinguishers must be at hand with a careful watch being maintained for fire breaking out whilst work is in progress.

- Exposed wooden flooring and other items of combustible material which cannot be removed must be covered with non-combustible material i.e. Gyproc Fireline, Minerit board etc.
- When welding, cutting, or grinding, the work area must be suitably screened using non-combustible material.
- Gas cylinders must be secured in a vertical position and fitted with a regulator and flashback arrester.

3.6.13 Flammable Waste

The following waste is anticipated that may present a fire hazard:

- Timber, cardboard, paper, plastics, polythene, polystyrene, general packaging, empty adhesive containers, some paints/tins.
- All skips sited in public areas to be lockable.
- Skips to be sited at least 3m from any structure and other buildings where possible.

3.6.14 Special Skips/Methods of Disposal

- Any hazardous materials of waste must be disposed of in skips or bins with close fitting metal lids

3.6.14 Plant Fire Risk

- Where practical, all mobile plant shall carry an appropriate fire extinguisher.

3.6.15 Hazardous Plant & Equipment

The following plant or equipment features naked flame(s) or the like, or other evident fire hazard:

- Drying equipment
- Blow torch
- Roof torch
- Floor covering heat jointer
- Combustion engine plant

The following petrol engine plant will be used:

- Generators
- Fuel filled plant

3.6.16 Fuel Storage

Fuel storage will be as follows:

- Diesel: In double-skinned tank stored within a suitable bund

- Petrol: (maximum 20l)

Refueling protocols to include:

- Do not refuel when equipment is still hot – allow to cool.
- Pour carefully wearing suitable gloves.
- Use a plastic funnel so as not to generate sparks.
- No smoking or naked lights and only refuel in the open air.
- Wear suitable eye protection where splashes are likely.
- Only refuel in appropriate designated areas.
- Spill pads are to be used under fuel tanks when decanting.
- No fires to be permitted on site, communicated to all operatives through on-site induction and toolbox talks.

3.7 Odours

No activities likely to create odours are foreseen to be undertaken on this development.

3.8 Site Lighting

All activities will be undertaken in accordance with the Environmental UK Light Pollution Leaflet and will ensure that areas identified by the HSE (within statement below) will be suitably lit.

The HSE requires that we have installed adequate lighting –

> *"Adequate lighting should be provided to all areas and especially to those used in darkness hours, or where loading/unloading can be carried out in poor visibility or diminished lighting conditions. As a minimum, lighting should be provided for junctions, around plant and buildings, pedestrian routes and areas where loading/unloading is to be carried out. Guidance for road lighting can be found in BS 5489 'Road Lighting'."*

The Workplace (Health, Safety & Welfare) Regulations 1992 will be complied with in this respect. Lovell does not commonly work in 'out of light' hours but will install sufficient 50 lux minimum lighting units to enable the safe movements of both vehicles and pedestrians across the site. The initial locations will be along the haul roads and around the site compound and the first working area. We will ensure that these illumination levels do not add light pollution to the neighborhood throughout the duration of the construction works on site.

Compound lighting and any necessary site task or general lighting will be configured such as to ensure that it is directed to light the area required without illuminating the surrounding area. This lighting

will be further controlled by means of time clocks and sensors as required and will only be used during the agreed working hours.

3.9 Exposure to UV radiation

- Check the UV index from the daily weather forecast and communicate to workforce as necessary.
- Avoid or minimise exposure to direct sunlight in the middle of the day (highest proportion of daily radiation occurs between 10am and 2pm)
- Swap jobs amongst workers where possible to allow time in shaded areas.
- Ensure rest breaks are taken in shaded areas or indoors – position water points indoors and encourage frequent hydration.
- Ask employees to cover up when working outdoors
- Encourage workers to protect their necks with flaps fitted to safety helmets.
- High factor sunscreen should be used where skin cannot be protected by other measures, for example, the face and lips.
- Encourage workers to regularly check their skin for changes to moles or other changes

3.10 Legionella & Weil's Disease

- Before commencing construction works on existing water systems (hot or cold) request the Legionella risk assessment which may have included testing.
- Ensure compliance with any controls shown on the risk assessment, or within the specific risk assessment for the activity.
- Ensure a good maintenance regime for any active hot or cold-water systems on site, e.g. weekly flushing of infrequently used outlets.
- Maintain good housekeeping particularly around canteen areas ensuring food waste is put in the waste bins/skips provided on site.
- Where rodents have been observed, engage with relevant pest control contractors and instruct operatives not to touch them if encountered.
- Wash cuts and grazes immediately with soap and running water and cover all cuts and broken skin with waterproof plasters before and during work, and always before eating, drinking or smoking.

3.11 Discarded Hypodermic Needles & other Sharps

- If discarded needles are discovered, they are not to be handled without appropriate arm's length tools.

- If possible, cover the needle(s) with something heavy such as a block or slab or something obvious, warn all in the area that needles have been discovered giving the location and inform them to avoid all contact.
- Inform site management as soon as possible giving location and amount.
- No part of the body should be placed 'blind' into any cavity/space - the area is to be exposed as much as possible and suitable lighting provided.
- If skin is accidentally punctured by a needle, encourage the wound to bleed - wash the wound with running water, dry and cover it with a plaster, and attend the nearest Accident and Emergency Hospital as soon as possible.

3.12 Liaison, Consultation & Complaints Procedures

Liaison, consultation and publicity arrangements, including dedicated points of contact are site specific and will be displayed outside our compound or will be addressed via telephone at our North East office. All complaints should fall into the following categories:

- Noise
- Dirt and Dust
- Parking Safety
- Inconsiderate behaviour
- Road Conditions and Vehicle Movements
- Environmental Concerns
- Pedestrian Access
- Obstruction Property
- Damage Site Lighting
- Working Hours

Lovell will stay in contact with the complainant until the site or sub-contractor has been investigated in accordance with the Site/Company Code of Practice, at which point the complaint will be taken off our 'active' list. Should the Council's Environmental Protection require further site-specific details, the contact phone number for our Contracts Manager and Site Manager will be provided on request to enable liaison and prompt address of any issues.

4.0 RECYCLING\DISPOSAL OF WASTE

4.1 Introduction

Waste is defined as a substance or object which the holder discards, intends to discard or is required to discard. The Environmental Protection Act also states 'any substance which constitutes a scrap material, an effluent or other unwanted arising from the application of any process or any substance or article, which requires to be disposed of, which has been broken, worn out, contaminated or otherwise spoiled.

Surplus material will be correctly identified as waste as appropriate and classified as non-hazardous or hazardous with reference to the European Waste Catalogue (EWC) 6-digit list of waste codes.
The standard industry classification (SIC) code will be correctly identified.

Waste will be passed to an authorised person with the correct technical competence who holds the relevant environmental permit or license as appropriate.

All contractors who carry or collect construction / demolition waste will have the correct waste carrier's license.

All waste transfers will be supported by the correct controlled waste transfer notes for non-hazardous waste, and a consignment notes for hazardous waste. Both are to include a declaration that the producer of waste has considered the hierarchy in disposing of the material.

Waste transfer notes will be kept for 2 years and consignment notes for 3 years.

Where materials are to be treated or processed on site before being suitable for reuse, consideration will be given as to whether this activity requires an environmental permit or registered exemption.

Compliance with CL: AIRE or WRAP protocols for the production of aggregates from inert waste may avoid the requirement of an environmental permit for reuse of processed material.

There are certain types of waste which are banned from landfills. These must be either recovered, recycled, or disposed of in other ways.

- Any liquid waste,
- Infectious medical or veterinary waste,
- Whole or shredded used tyres,
- Waste that may cause a problem in landfill such as hot or chemically active waste.

Difficult wastes require handling in a particular way; waste contractors will be consulted.

- Invasive weeds e.g. Japanese knotweed, giant hogweed,
- Contaminated land,
- Gypsum and plasterboard waste.

4.2 Site Waste Management Plan (SWMP)

4.2.1 Lovell's Responsibility

Lovell and the temporary Principal Contractor has developed, and will implement, a Site Waste Management Plan (SWMP). The Site Waste Management Plans Regulations (2008) were repealed in December 2013. Although no longer a regulatory requirement in England, SWMPs are still considered to be good practice.

4.2.2 General Policy

- Surplus material will be correctly identified as waste as appropriate and classified as non-hazardous or hazardous with reference to the European Waste Catalogue (EWC) 6-digit list of waste codes.
- The standard industry classification (SIC) code will be correctly identified.
- Waste will be passed to an authorised person with the correct technical competence who holds the relevant environmental permit or license as appropriate.
- All contractors who carry or collect construction and demolition waste will have the correct waste carrier's license.
- All waste transfers will be supported by the correct controlled waste transfer notes for non-hazardous waste, and a consignment note for hazardous waste. Both are to include a declaration that the producer of waste has considered the hierarchy in disposing of the material. Waste transfer notes will be kept for 2 years and consignment notes for 3 years.
- Where materials are to be treated or processed on site before being suitable for reuse, consideration will be given as to whether this activity requires an environmental permit or registered exemption. Compliance with CL: AIRE or WRAP protocols for the production of aggregates from inert waste may avoid the requirement of an environmental permit for reuse of processed material.
- There are certain types of waste which are banned from landfills. These must be either recovered, recycled, or disposed of in other ways:
    i. Any liquid waste,
    ii. Infectious medical or veterinary waste,
    iii. Whole or shredded used tyres,
    iv. Waste that may cause a problem in landfill such as hot or chemically active waste.

Difficult waste requires handling in a particular way; waste contractors will be consulted:

i. Invasive weeds e.g. Japanese knotweed, giant hogweed,
ii. Contaminated land (see below)
iii. Gypsum and plasterboard waste.

This project will endeavour to apply the waste hierarchy by implementing the following:

Prevention or Minimisation

i. Designing to suit standard product sizes and to avoid site cutting.
ii. Designing levels to avoid excavation materials leaving site.
iii. Specifying recycled materials.
iv. Pre-assembling components off site or using pre-cast sections.
v. Not over-ordering materials.
vi. Reducing packaging where possible.
vii. Ordering materials at the size required, to avoid off cuts.
viii. Promoting employee awareness of environmental matters.
ix. Avoiding over excavating.

Reuse

i. Reusing soil for landscaping.
ii. Using timber off cuts for alternative uses.
iii. Using brick rubble as hardcore.
iv. Identifying whether other sites can use materials.

Recycling

i. Crushing waste concrete to use a hardcore.
ii. Recycling asphalt planings as road subbase or temporary surfacing.
iii. Recycling scrap metal, glass and waste oil.
iv. Segregating waste materials.
v. Recycling office waste.
vi. In Scotland, dry recyclables must be kept separate. This includes glass, metals, plastic, paper, card or cardboard.

Recover

i. Sending waste for composting or energy recovery (such as timber off site to be shredded for use as biomass fuel, or composting.)

4.3 SWMP Requirements

The SWMP will identify the name of the person who drafted it, Lovell and Principal Contractor. The SWMP will also contain a description of the construction work proposed, including the location of the site, and the estimated cost of the project.

To minimise the quantity of the waste produced on site, the SWMP must record any decision taken before the plan was drafted on the nature of the project; its design; construction method, or materials employed.

The SWMP also:

- Describes each waste type expected to be produced in the course of the project
- Estimate the quantity of each different waste type expected to be produced; and
- Identify the waste management action proposed for each different waste type, including re-using, recycling, recovery and disposal
- Contain a declaration that Lovell and the Principal Contractor will take all reasonable steps to ensure that:
- Waste from the site is dealt with in accordance with waste duty of care section 34 of the Environmental Protection Act 1990 (3) and the Environmental Protection (Duty of Care) Regulations 1991 (4); and
- Materials will be handled efficiently, and waste managed appropriately

4.4 Access to the SWMP

4.4.1 During Construction

The SWMP will be kept at the site office. It will ensure that every contractor knows where the SWMP is kept, and the SWMP will be made available to any contractor carrying out work described in the plan.

4.4.2 After Completion

The SWMP will be kept for two years after completion of the project at the Principal Contractor's head office, or place of business, or at the site of the project.

4.5 Resource Efficiency

Where possible this project will look to improve resource efficiency and reduce waste by;

- Specifying materials from sustainable sources; recycled and locally sourced.
- Designing the project to suit standard product sizes and to avoid site cutting.
- Designing for off-site, pre-assembly and ensuring that products are responsibly sourced.

- Designing to allow a cut/fill balance and by utilising surplus materials in site features (such as landscaping).
- Look for opportunities to source excess materials from other projects.
- Specifying non-hazardous, low impact materials with low embodied carbon.
- Designing to allow for disassembly so components can be recovered and used elsewhere.
- Buying construction products from sustainable sources from suppliers with a good environmental track record.
- Not over-ordering materials.
- Reducing packaging where possible.
- Ordering materials at the size required to avoid off cuts.
- Avoiding over excavating.
- Storing materials to avoid damage, theft, contamination, and double handling.
- Segregating surplus materials for reuse elsewhere.
- Crushing existing demolition waste for reuse to avoid the need for virgin materials

4.6 Duties regarding Waste

4.6.1 General Duties for the Principal Contractor

- Ensure co-ordination of the work and co-operation among contractors at work during the construction phase
- Ensure that every worker carrying out the construction work is provided with:
  i. A suitable induction and
  ii. Any further information or training needed for the particular work to be carried out within the SWMP
- Make and maintain arrangements that will enable the Principal Contractor and the workers engaged in the construction work to co-operate effectively in promoting and developing measures to ensure that any waste arising on site is managed within the terms of the SWMP and in checking the effectiveness of such measures
- Ensure, so far as reasonably practicable, that waste produced during construction is reused, recycled or recovered
- Take all reasonably practicable, that waste produced during construction is re-used, recycled or recovered
- Take all reasonable steps to ensure that sufficient site security measures are in place to prevent the illegal disposal of waste from the site.

4.6.2 Handover of Principal Contractor Duties

Lovell is the Principal Contractor for this project but with the groundworker taking temporary principal contractor duties from the initial start on site. This will be handed over at an appropriate

juncture in the programme. Lovell will assist the groundworker before handover in any review, revising and refining of the SWMP as necessary, to ensure that any changes in roles and responsibilities are clearly communicated at handover of Principal Contractor duties.

4.7 Updating the SWMP

4.7.1 Daily Reference & Updating

The SWMP will be updated when any waste is removed from site and include:

- The identity of the person removing the waste.
- The waste carrier registration number of the carrier.
- A copy of, or reference to, the written description of the waste required by section 34 of the Environmental Protection Act.
- Details of the site that the waste is being taken to, and whether the operator of the site holds a permit under the Environmental Permitting (England and Wales) Regulations 2007 or is registered under those regulations as a waste operator exempt from the need for such a permit.

4.7.2 Reviewing throughout Construction Phase

As often as necessary to ensure that the Plan accurately reflects the progress of the project, and in any event not less than every six months, the following must be undertaken:

- Review the plan.
- Record the types and quantities of waste produced.
- Record the types and quantities of waste that have been:
  i. Re-used (and whether this was on or off site)
  ii. Recycled (and whether this was on or off site)
  iii. Sent for another form of recovery (and whether this was on or off site.
  iv. Sent to landfill; or
  v. Otherwise disposed of;
- Update the Plan to reflect the progress of the project.

4.7.3 Reviewing upon Practical Completion

Within three months of the work being completed, the Principal Contractor must add the following to the SWMP:

- Confirmation that the Plan has been monitored on a regular basis to ensure that work progressed according to the Plan, and that the Plan was updated in accordance with the Regulations

- A comparison of the estimated quantities of each waste type against the actual quantities of each waste type
- An estimate of the cost saving that has been achieved by completing and implementing the plan

5.0 IMPACT ON WILDLIFE

An Ecology Management Strategy for the development and Ecology Management Plans for Laurel Gate details the measures to be taken to minimise the effect of construction on wildlife:

- The impact on wildlife corridors/commuting and foraging routes will be managed through phased development in accordance with the approved Phasing and Construction Programme.
- Wildlife features and ecologically important areas have been identified and will be suitably protected prior to works commencing.
- Statutory bodies and local groups have been liaised with to explain mitigation measures to be used as required.
- Where a need to take, disturb or relocate protected species becomes necessary, consents will be obtained from the relevant regulatory body and competent licensed ecologists used to carry out the work.
- Site clearance works will be planned around nesting, hibernation or breeding seasons.
- Protected areas and consequences of any damage within these areas will be fully communicated to site personnel.
- The condition of any protection erected at designated areas will be regularly checked during construction.
- Watercourses will be checked to ensure they are free of any contaminated run-off or other forms of pollution (as previously discussed)
- In the event of unexpected ecological finds, work will stop, and a competent ecologist will be consulted along with statutory bodies as appropriate.

6.0 ARCHAEOLOGY

6.1 Pre-Construction Phase

As this land held a public house with car park and some out buildings with recent demolition the risk of any archaeological findings is extremely low. This was also highlighted within the original desktop study, ground investigations and subsequent remediation. Lovell do not expect to discover any artifacts of archaeological merit, however the experienced groundworkers within the construction phase will remain vigilant.

6.2 Construction Phase

The groundworkers employed on this project will be highly experienced and have experienced areas of higher risk for archaeological findings previously. In the unlikely case of accidental discovery of archaeological finds or human remains, the following actions are to be implemented:

- Stop work in the area of discovery.
- Leave the find in situ and undisturbed.
- Control access to the area to authorised persons only.
- Stop vehicles entering the area.
- Obtain specialist advice as appropriate.

Reporting of human remains, treasure and other archaeological finds will be to the appropriate statutory authority. Human remains discoveries will be reported to the local coroner. If there is a possibility the remains are recent, the local police must be contacted.

7.0 REVIEW & REMEDIAL ACTION PLAN

The following pollution protocol will be adopted:

- In the first instance the mitigation measures identified previously in 3.1 will be adopted
- Emergency procedures in the event of a spill are outlined in Section 3.1
- Once a pollution incident has been dealt with, an investigation must be carried out. All intrusive groundwork on site *must cease immediately* and shall not recommence without written agreement from the Local Planning Authority.
- Where it is found that additional mitigation measures are required as part of the investigation, risk assessments, method statements will be reviewed and updated and re-communicated to all operatives through toolbox talks
- This CEMP will be reviewed and updated in line with any actions identified. This will then be communicated to all contractors on site to share best practice.

8.0 QUALITY

Specifications and technical information for the project will be assessed by the Building Control Authority. All substructures will be constructed as designed by a structural engineer.

8.1 Objectives

The development will be constructed in accordance with the approved register of drawings and documents to a quality which accords with good building practice, standards laid down by the Premier Guarantee

or Zurich, and the requirements of the CDM Regulations. The register of documents and drawings will be checked upon issue. The scheme will be built in accordance with CDM Regulations, LIMS requirements, specific requirements of this PMP and approved specifications.

8.2 Procedures

Company procedures are clearly set out in the Construction section of LIMS and will be implemented in the building of this project.

Works will be carried out in accordance with approved drawings. Work will be initiated by instructing contractors to carry out works in accordance with programme, LIMS, orders, drawings and specifications issued.

Approved drawings will be uploaded to Project Plus. A drawing register is automatically populated by Project Plus to monitor the issue of all technical information from office to site and to external parties.

8.3 Inspections & Testing

New build works shall be carried out in accordance with NHBC standards, in the case of Laurel Gate. The inspection and testing regime will generally be in accordance with nationally agreed NHBC inspection and hold points, and site management will carry out stage checks in accordance with LIMS.

Site checks shall be carried out in advance of any NHBC/third party inspection. Where items require rectification, these shall be carried out immediately as part of the site operation.

Other inspection and test plans shall be prepared as required for:

- Screed, mortar and concrete – (ready mixed to be sourced and test certificates to be obtained from supplier/contractor)
- Special requirements as identified in the specification.
- Activities agreed at the contract commencement meeting.
- Activities identified during the construction stage.
- Site management will implement stage checks and material call off/delivery schedules in accordance with LIMS which will be monitored by the Operations and Contracts Manager. Consideration has been given to the quantity and method of delivery, and the following restrictions have been noted (i.e. size of delivery vehicle, frequency and requirement of part loads on bulk orders).

8.4 Refurbishment (where applicable)

Inspection and test plans shall be prepared as required for:

- The contract requirements as identified in the specification.
- Activities agreed at the contract commencement meeting.
- Activities identified during the construction stage.
- If no specific tests are required by the client, then this is to be documented.
- Method statements, inspection and test plans, check lists and record sheets shall be prepared for those items requiring them. Where possible a standard format shall be followed on each project. Each stage of operation requiring checking shall be separately identified. Where activities are carried out by a contractor, they shall be responsible for the preparation of the method statements, checklists and carrying out the testing and inspection with agreed points where the site management carried out a stage check. Where items require rectification, these shall be carried out immediately as part of the site operation. Failure to meet the requirements of the inspection and test plan shall be dealt with under the terms of the contract of employment (i.e. direct or subcontract).

8.5 Meetings

Regular contractor coordination meetings, chaired by the Contracts Manager, and attended by relevant contractors, will be held. The date for the first meeting will be agreed at the monthly job review.

Internal job review meetings chaired by the Contracts Manager/Site Manager and attended by Surveyor will be held monthly following initial handover from estimating team.

8.6 Handover Procedures

Properties are to be brought to completion by site management before being offered to the Client's representative. For sales plots, an inspection is to be carried out jointly by the site management sales representative and all outstanding items recorded, this will then be followed by the Contract's Manager check and finally a Director sign off prior to any handover taking place.

All plots are to be inspected jointly by Lovell and the Client's representative/purchaser and outstanding items recorded.

Following the inspection and completion of any works arising, the property is available for handover and is evidenced by the signing of a handover certificate, by the Client's representative/purchaser. Meter readings will be taken and a handover pack containing all the relevant details appropriate to the property will be handed to the Client's Representative.

8.7 Maintenance

While still on site, site management will ensure day-to-day defects are dealt with as they are reported. Following completion of the site, the day-to-day maintenance will be carried out by Lovell Customer Care department, who should be contacted by the Client. All relevant information will be passed on to the Customer Care department to enable this procedure to take place.

Defects will be the responsibility of the Customer Care Department. These are to be dealt with as laid down within LIMS, Premier Guarantee Buildmark and requirements of contract documents. On completion of the project the Contracts Manager will ensure handover is recorded on Coins with the Customer Care co-ordinator and update the inspection log to ensure defects liability periods are recorded.

On completion of any items raised by the representative/tenant, confirmation, by signature, that these works have been carried out will be required.

8.8 Roads & Sewers

Site management will ensure that roads and sewers for adoption and upgrading are completed in accordance with details and specifications and placed on maintenance by the local adopting authority.

The Contracts Manager will be responsible for ensuring that adoption takes place at the end of the maintenance period, where applicable.