

Construction Environment Management Plan (CEMP)

Project: Chain Road, Blackley, Manchester

April 2022 – Rev 1

Quality Management

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Project: Chain Road, Blackley, Manchester

Construction Environmental Management Plan

Client: Great Places Housing Group

Principal Contractor: Terra Nova Developments Ltd

Table of Contents

Executive Summary	6
1 Project Background	7
1.1 Outline of Project	7
1.2 Framework of this CEMP	7
1.3 Legal Compliance	8
1.4 Summary of the Requirements of Condition 22	8
2 Site Information and Consented Development	10
2.1 Site and Surrounding Area	10
2.2 Scheme Description	10
2.3 Sensitive Receptors	11
3 Control of the Construction Process	12
3.1 Roles and Responsibilities	12
3.2 Training and Raising Awareness	14
3.3 Reporting	14
3.4 Monitoring, Continual Improvement and Review	15
3.5 Environmental Complaints and Incidents	15
3.6 Public Relations and Community Relations	17
4 Construction Management	18
4.1 Description of Construction Works	18
4.2 Phasing of Construction Works	18
4.3 Construction Equipment	19
4.4 Hours of Working (Hours of Site Operation)	19
4.5 Construction Traffic Management Plan	19
4.6 Storage of Plant and Materials	21
4.7 Handling of Plant and Materials	22
4.8 Health and Safety Management	22
4.9 Security On-Site	22
4.10 Considerate Constructors	23
4.11 Phase-specific Construction Method Statements (CMS)	23
5 Environmental Control Measures	25
5.1 Public Access and Traffic Management	25
5.2 Waste and Materials Management and Storage	25
5.3 Noise and Vibration	26
5.4 Dust & Air Quality	27
5.5 Ecology & Biodiversity	28
5.6 Contaminated Land Procedures	30
5.7 Hydrology & Water Quality	30
5.8 Visual Impacts	31
5.9 Artificial Lighting	32
5.10 Emergency Procedures	33
6 Conclusions	35

Appendices

Appendix A - Site Location Plan	36
Appendix B – Site Layout Plan	37
Appendix C – Indicative Site Compound Layout Plan	38
Appendix D – Routing Strategy & Swept Path Analysis	39

Executive Summary

This Construction Environmental Management Plan (CEMP) outlines commitments and measures to be implemented by to ensure that potential environmental impacts and disturbance to local residents during the construction of the proposed development will be minimised or eliminated.

Environmental controls will be implemented to minimise emissions of dust during the construction period, noise and vibration, lighting, adverse effects on ecology and local water courses. The plan sets out the principles to be adhered to in establishing the operational activities during individual development phases and the associated roles and responsibilities.

This CEMP outlines the typical measures that will be implemented by the Principal Contractor to minimise and mitigate the construction impacts of the project.

Prior to commencement of construction works, the CEMP will be reviewed to reflect specific operations and activities that are due to be undertaken within that phase of development.

In addition, the CEMP should be regularly monitored and updated where necessary throughout the construction works.

1 Project Background

1.1 Outline of Project

Proposed Residential Development of 32 new dwellings, Chain Road, Blackley, Manchester.

1.2 Framework of this CEMP

1.2.1 This CEMP is based on measures to ensure legal compliance and established good management practice and includes the following:

- Site Information: including environmental management structure, roles and responsibilities, location of any potentially sensitive receptors such as trees, watercourses, local residents, etc.;
- Construction Information: a description of the works based on the information available to date, anticipated construction programme, proposed working hours, details of haulage routes, equipment to be used, etc.;
- Environmental Issues and Environmental Control Measures: potential environmental issues related to the construction works, details of the site inspection and audit programme, methods for managing environmental risks and reducing impacts, emergency procedures, waste and hazardous materials storage procedures, liaison with the local community, and specific project environmental procedures relating to waste and materials management, dust and air quality, noise and vibration, vehicles management and protection of vegetation and fauna; and
- Monitoring: procedures for recording and reporting monitoring results and taking remedial action in the event of any non-compliance, details of sensitive receptors, threshold values and analysis methods.

1.3 Legal Compliance

1.3.1 Considerable environmental legislation applies to the works to be undertaken. Prior to commencement of construction works, all relevant legislation, including requirements for licences, permits and / or consents, shall be identified, and the Principal Contractor will be required to provide details of how compliance is to be achieved, as part of the Plan for delivering the CEMP.

2 Site Information and Consented Development

2.1 Site and Surrounding Area

- 2.1.1 The development site is located in Higher Blackley, a suburb around 7km north of Manchester city centre. The site is a broadly rectangular area of land, bounded by residential development to the west, Chain Road to the north-east and Victoria Avenue to the south. Also see Site Location Plan in **Appendix A**.
- 2.1.2 The site was historically occupied by the Lamb and Lion public house, together with associated areas of car parking and grass.
- 2.1.3 The existing 3,500m² existing triangular shaped site is situated immediately off Victoria Avenue at the junction of Chain Road, Blackley, Manchester, M9 6QX. Historic records show that the site has been vacant since 2020 and the most recent building to occupy the site include a public house and bowling green which date back to 1982.

2.2 Scheme Description

- 2.2.1 The development is a residential development comprising of 32 new residential dwellings and associated infrastructure.
- 2.2.2 In summary the consented scheme comprises:
- Construction of 32 residential units in a mix of housing types and sizes namely 12 houses and 20 apartments;
 - provision of Site access; and
 - on-site surface water attenuation and controlled drainage.
 - See Site Layout Plan in **Appendix B**.

2.3 Sensitive Receptors

- 2.3.1 Table 2.1 below lists a number of receptors which have been identified as being potentially sensitive to the works to be undertaken during the construction of the Development due to their proximity to the Site and nearby access roads.

Table 2.1 Receptors in the Vicinity of the Proposed Development that are Potentially Sensitive to Construction Works

Receptor	Location
Existing established tree in the vicinity of the proposed site access	On the Northern boundary
Existing utilities	Located on-site
Views to and from the Site from nearby residential Properties	On the Northern and Western sides of site
Users of the local road network	Users of the localised residential streets
Meade Hill School	North-Westerly/South-Easterly direction of site
On-site construction workers	Located on-site

- 2.3.2 Additionally, as new homes are constructed and occupied, contractors will need to take these sensitive receptors into account.

3 Control of the Construction Process

3.1 Roles and Responsibilities

- 3.1.1 The anticipated roles and responsibilities of the key parties involved in the construction works are set out below. However, it should be noted that all members of staff are responsible for ensuring the requirements of the CEMP are followed:

The Applicants'

- 3.1.2 Great Places Housing Group (hereafter referred to as 'the Applicant') will appoint a Principal Contractor to develop specific phases on their behalf.

Principal Contractor

- 3.1.3 Where a Principal Contractor is appointed to construct specific phases they will be responsible for delivering the CEMP.
- 3.1.4 They will be responsible for delivering this CEMP to ensure that it covers the specific activities to be undertaken as part of any given phase of development, through the submission of a CPP.
- 3.1.5 They will appoint a Site Manager, full details of which will be included within the CPP.
- 3.1.6 The Principal Contractor will display the emergency site contact (appointed Site Manager) & contact number in strategic locations around the site's boundary fencing/hoarding.

Site Manager

- 3.1.7 The Site Manager will be responsible for the day to day management of Health and Safety, Environmental and Quality performance during the construction of the Proposed Development. The Site Manager will be also responsible for implementing the CEMP, including the development of a detailed Action Plan for delivering the CEMP, monitoring the performance of sub-contractors and maintaining records to demonstrate compliance with and implementation of the CPP. This will include participating in communication with relevant third parties (e.g. Environment Agency) as required and arranging for the periodic review and update of the CPP, including construction phase reviews.
- 3.1.8 In addition, the Site Manager will be responsible for ensuring that all staff and operatives receive a site specific health, safety and environmental induction prior to starting work on-site and are provided with relevant information concerning environmental sensitivities and protection measures.
- 3.1.9 The Site Manager will be responsible for reviewing all risk assessment method statements and ensuring an appropriate programme of toolbox talks are developed and effectively communicated.
- 3.1.10 The Site Manager will be responsible for overseeing any environmental monitoring programmes, carrying out site environmental inspections and audits as necessary, and will co-ordinate the environmental monitoring programme. Such inspections will include completion of an 'End of Day Checklist' on a daily basis. The Site Manager will also be responsible for ensuring that all relevant legal consents, licences and exemptions are in place in advance of relevant works commencing, and that all relevant licence and legal requirements are adhered to.
- 3.1.11 All queries and complaints from the public and the local community will be directed to the Site Manager who will be responsible for responding to these and maintaining a register of complaints (together with the follow up actions which have been taken).

Project Environmental Management (PEM)

- 3.1.12 A suitably qualified person will be appointed to fulfil the environmental management role and will co-ordinate monitoring and reporting of the CEMP implementation, through liaison with relevant site staff and others as appropriate. This role could be undertaken by the Site manager and shall include:
- Review and comment on the appointed Principal Contractor's detailed CPP for delivering the CEMP;
 - Participate in Principal Contractor performance review meetings as required;
 - Contribute to communication on environmental matters between the project partners, any relevant statutory consultees [and consultation with local residents](#);
 - Carry out site environmental inspections and audits, as necessary;
 - Co-ordinate the environmental monitoring programme for those components necessary and respond to the outcomes as necessary;
 - Monitor implementation of corrective action by the appointed Principal Contractor and communicate issues to the PM as necessary;
 - Monitor the Principal Contractor's management of environmental complaints;
 - Monitor the appointed Principal Contractor to ensure that all relevant legal consents, licences and exemptions are in place in advance of relevant works commencing, and that the requirements are adhered to;
 - Co-ordinate the Environmental Management Plan review process; and
 - Ensure that the objectives and targets set within the Environmental Management Plan are being achieved according to timescale and that relevant regulation standards are being met.

Site Waste Management

- 3.1.13 A suitably qualified person will be appointed to fulfil the Site Waste Management role (i.e. Site Manager) and will be responsible for overall waste management issues arising from the project. These would include:
- Implementation and monitoring of waste minimisation, segregation and safe disposal measures; and
 - Dissemination of waste reduction and waste management procedures to all relevant personnel on site.

All Staff and Subcontractors

- 3.1.14 All staff and subcontractors have the responsibility to:
- Work to agreed plans, methods and procedures to eliminate and minimise environmental impacts (including the CEMP);
 - Understand the importance of avoiding pollution on-site, including noise and dust, and how to respond in the event of an incident to avoid or limit environmental impact;
 - Report all incidents immediately to their line manager;
 - Monitor the workplace for potential environmental risks and alert the immediate line manager if any are observed; and
 - Co-operate as required, with site inspections and audits.

Key Contacts

- 3.1.15 Authorities who may need to be contacted in respect of environmental matters include the following:
- Environment Agency, Tel: 0800 80 70 60 – 24hr Incident Hotline
 - Natural England, Tel: 0300 060 3900
 - Environmental Health Department, Manchester City Council, Tel: 0161 234 5004

3.2 ■ Training and Raising Awareness

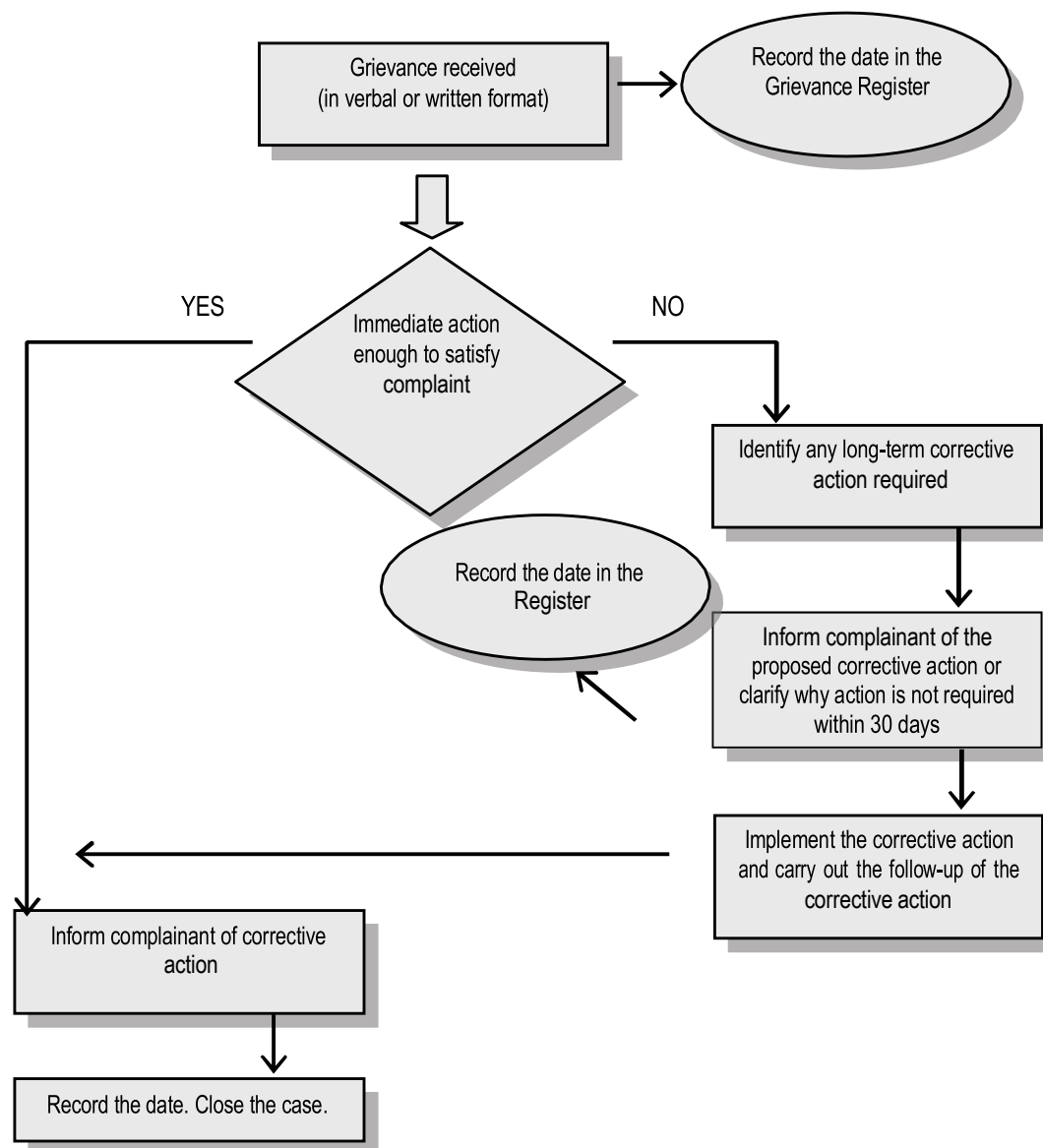
- 3.2.1 ■ The raising of environmental and health and safety awareness is viewed as a crucial element in the appreciation and implementation of the CEMP. This CEMP will be distributed to members of the project team, including suppliers and subcontractors as necessary to ensure that environmental and health and safety requirements are adequately communicated.
- 3.2.2 The Site Manager is responsible for ensuring that all people on-site are provided with relevant information concerning environmental protection. A system should be operated on-site whereby all staff and operatives receive a site specific safety and environmental induction prior to commencing any work on-site.
- 3.2.3 Individual appraisals and regular Health, Safety and Environmental meetings will be held to ensure that the training requirements of staff are adequately monitored. At these meetings the future site operations will be discussed in detail, including the standard and level of training required of site operatives (e.g. toolbox talks) and subsequently the individual needs of the staff. Training records for staff will be made available in the site office.
- 3.2.4 Staff will complete mandatory Construction Skills Certification Scheme training and will be encouraged to attend training courses relevant to environmental protection.

3.3 Monitoring, Continual Improvement and Review

- 3.3.1 The person fulfilling the project environmental management role will be responsible for maintaining a register of all environmental monitoring, which should be made available for auditing and inspection.
- 3.3.2 To ensure the CEMP remains 'fit for purpose' for the duration of the project it should be reviewed and updated during the life of the project to ensure that it remains suitable to facilitate efficient and effective delivery of the project environmental commitments.
- 3.3.3 The environmental review would, consider past performance from inspections, audit report and monitoring data, plan actions required to mitigate forthcoming risks and disseminate best practice.

3.4 Environmental Complaints and Incidents

- 3.4.1 The Site Manager will develop and implement an appropriate queries / complaints procedure and details of whom to contact in the event of a complaint will be displayed on signage on the perimeter hoarding.
- 3.4.2 The formal procedure for handling project complaints/concerns will be developed and agreed by the Principal Contractor / Site Manager but may include a procedure similar to that detailed below and represented in the flow chart:
- Stakeholders (i.e. the general public, local authority etc.) will be able to report any concerns, complaints or other comments to site manager in writing, by email or in person at the site office. [Site contacts details should be provided at site entrances, on perimeter hoardings and possibly at appropriate community locations.](#)
 - The Site Manager will take full details of the concerns expressed and ensure that a formal assessment is commenced of the reported concern. They will also issue an initial response to the person who has submitted the complaint/concern confirming its receipt. The Site Manager will record the date and contact information associated with a complaint/concern on a standard form and place a copy in a project grievance register;
 - The Site Manager will undertake an investigation to assess what corrective and preventive action, or further investigation is necessary;
 - The Site Manager will respond within a reasonable timescale (typically not more than 30 days) and place details of the completed corrective and preventive actions within the project grievance register. If a longer term programme is required to provide an adequate solution then this programme will be detailed on the register against the specific issue;
 - The Site Manager will notify the relevant stakeholder of the proposed corrective and preventive actions to be adopted;
 - Any corrective measures / actions will be implemented with associated implementation dates being recorded;
 - For a long corrective action, the complainant will be informed of proposed action; and
 - Following the implementation of the corrective action and agreement with the relevant stakeholder that the complaint has been adequately addressed the case will be closed and date recorded.



3.4.3 In the event that a complaint is not resolved to the satisfaction of the complainant directly with the site manager the following levels of mediation should be available:

- If the grievance cannot be adequately addressed by the site manager, the complaint/concern will be escalated to an appropriate contact within both the Principal Contractor's and the Applicant's organisations;
- If the grievance is still not adequately resolved the issue will be taken to the Local Authority for a final decision to be made.

3.5 Public Relations and Community Relations

- 3.5.1 Regular and proactive liaison with the Local Authority and other third parties (i.e. the Environment Agency) as appropriate is recommended on environmental issues throughout the project implementation.
- 3.5.2 A project community liaison plan will be established taking into account established local community groups. This will provide a framework for managing communications with local residents and interested parties.
- 3.5.3 General information regarding the project will be provided to neighbours affected by the work and the form and format for regular communication will be organised in liaison with established community groups to ensure effective and regular communication is maintained throughout the development period regarding programming and construction activities.

4 Construction Management

4.1 Description of Construction Works

4.1.1 The main elements of construction work associated with the different components of the Proposed Development are summarised in Table 3.1 below.

Table 3.1: Overview of Construction Works

Works	Description
Site Clearance and Site Set-up	Initial site preparations including site clearance and top soil stripping Earthworks Establishment of site accommodation, construction compound, material storage areas, fencing, signing and car parking for workers Site hoardings and security measures
Site Infrastructure	Construction of foul and surface water drainage Construction of development access and on-site roads Utility diversion and construction
Construction of New Buildings and Associated Facilities	Groundworks for buildings; Building superstructures; Fitting out of buildings; Landscaping and preparation of outdoor recreational facilities and open space
Site Completion	Reinstatement of ground around the Site and removal of construction compounds

4.2 Phasing of Construction Works

4.2.1 Subject to planning, the construction of the development is anticipated to begin on-site TBC and is anticipated to extend until TBC. First occupation is anticipated to take place in TBC.

4.2.2 The above timescales are estimates based upon current market conditions and likely build rates. Any significant variations to this timeframe will be communicated.

4.3 Construction Equipment

4.3.1 The type of plant likely to be used for each type of construction activity is indicated Table 3.2.

Table 3.2 Likely Plant Required for Construction Activities

Activity	Possible Plant Required
Site clearance and Earthworks	Tracked Excavator Dump trucks Bulldozer Graders Rollers
Road construction	Tracked Excavator Earth Mover Paving machines Road planer
Attenuation features construction	Tracked Excavator Earth Mover
Utility diversions and installation	Tracked Excavator Tipper lorries, Rollers
Residential development	Tracked Excavator JCB Concrete and Bitumen Paver Site Dumper Cement Mixer Fork Truck
Preparation of open space	Tracked Excavator Site Dumper Bulldozer

4.3.2 The impacts associated with the use of this equipment/activities on noise and air quality and the environmental control measures which are recommended are discussed in Section 5.

4.4 Hours of Working (Hours of Site Operation)

4.4.1 The standard working hours for all construction activities will be from:

- 08.00 – 18.00 Monday to Friday;
- 08.00 – 14.00 Saturdays; and
- No works on Sunday, Bank or Public Holidays

4.4.2 Any proposed changes to these working hours will need to be agreed in advance with the Local Authority.

4.5 Construction Traffic Management Plan

Vehicles:

- 4.5.1 The principal access for construction traffic to the site generally and the site compound will be via the proposed temporary site access located off Chain Road. This access is detailed on the Site Layout Plan attached at **Appendix B**.
- 4.5.2 The existing access along Chain Road will be closed and the development will be served via a priority junction located a short distance, thus removing the priority controlled crossroads with Symond Drive.
- 4.5.3 All delivery traffic will be signed to use this access. Upon entering the site, they will be directed to the main site compound via the haul / access road from where they will be directed to their site destination along designated traffic routes. The vehicle routes will be subject to a 10mph site speed

limit.

- 4.5.4 Construction traffic will approach from both sides of the site entrance using Chain Road with suitable signage displayed on approaches directing construction traffic.
- 4.5.5 Permissible routes for construction traffic will be agreed with the Local Authority prior to commencing any construction works.
- 4.5.6 A clear signage strategy will be agreed and implemented in accordance with the agreed construction traffic routing to ensure that construction traffic utilises these designated routes to minimise the impact on the surrounding road network.
- 4.5.7 The Site Manager will be responsible for monitoring and enforcing the agreed construction and transport delivery / haulage routes.
- 4.5.8 The access route will be a condition of all supply orders and subcontracts, and no local roads will therefore be impacted. A log of regular drivers will be maintained including records of agreements with organisations and drivers to demonstrate their understanding of the proposed access routing.
- 4.5.9 In the event of non-compliance, the subcontractor or supplier would be in breach of contract, allowing disciplinary action against individual drivers.
- 4.5.10 [Employees will be similarly advised of the access routes and parking of construction vehicles and staff will be provided within the site compound.](#)
- 4.5.11 The CPP will identify the likely vehicle movements and vehicle types, for the phase. HGV movements will be restricted as far as reasonably possible so as to avoid peak traffic flow periods (i.e. from 08.00-09.00 and 17.00-18.00). Deliveries will only be allowed between 09.30-14.30 Mon-Fri.
- 4.5.12 A designated banksman will control all on site plant and vehicle movements particularly where they have a need to reverse. All plant storage areas will be on hard standings.
- 4.5.13 Prior to leaving the site all waste lorries will be inspected by the driver to ensure that the vehicle is clean and safe to leave the site, [and all construction vehicles will be sheeted over.](#)
- 4.5.14 [All adjacent roads will be kept clean by the use of manual and mechanical means if required. A road sweeping contract will be put in place during groundworks part of the programme which will be monitored through the remaining programmed works.](#)
- 4.5.15 All site traffic movements will be in accordance with local authority requirements.

Pedestrians/Personnel:

- 4.5.16 All visitors will be directed to the main site compound offices only. At no time will any visitors be allowed access to areas where construction works are in progress. A non-PPE route will always allow pedestrian access to the office and welfare facilities prior going on site and to ensure they use the right Personal Protective Equipment and Clothing.
- 4.5.17 The pedestrian route will be clearly defined to ensure that there is no crossing of pedestrians through the vehicular route.
- 4.5.18 The general public will be excluded from the works area using appropriate fencing and signage.
- 4.5.19 All visitors will be required to report to the Site Office prior to entering the works area. Provision will be made for site vehicles and visitor parking. A safe, demarked and signed route will be identified between the parking area and site compound.
- 4.5.20 The compound area will be fenced off and secured with Heras fencing.
- 4.5.21 Excavations and works areas will be Heras fenced as required.
- 4.5.22 Health and Safety signage will be displayed at appropriate locations throughout the works.
- 4.5.23 All visitors will be required to sign in and out of the site on a daily basis.

4.6 Storage of Plant and Materials

- 4.6.1 The construction compound(s) will not be located within 10m of any watercourse. The CPP will identify storage areas and site compounds for that phase.
- 4.6.2 Hazardous substances, such as diesel, oil, chemicals, cement, cleaning materials and paint, used during the construction process have the potential to cause serious pollution. Therefore, Environment Agency Pollution Prevention Guidance (PPG) will be followed. Of particular relevance are the following PPGs:
- PPG1: General Guide to the Prevention of Pollution (May 2001);
 - PPG2: Above Ground Oil Storage Tanks (August 2011);
 - PPG5: Works or maintenance on or near water (October 2007);
 - PPG6: Working at Construction and Demolition Sites (March 2012);
 - PPG7: Refuelling Facilities (July 2011);
 - PPG8: Safe Storage and Disposal of Used Oils (February 2004);
 - PPG21: Pollution Incident Response Planning (March 2009); and
 - PPG22: Dealing with Spills (April 2011).
- 4.6.3 A bunded storage area will be located on the site (or each phase of development if necessary) in the main compound and will be provided for the duration of the construction period for the storage of oils, fuels, chemical and other hazardous construction materials. The base and bund walls will be impermeable to the material stored and be of 110% capacity of the liquids being stored in line with Environment Agency (EA) Guidelines. Access to the hazardous storage area will be restricted to those people who are authorised to do so and have adequate training.
- 4.6.4 Storage areas will be regularly checked and documented. Leaking or empty oil drums will be removed from the site immediately and disposed of via a licensed waste disposal contractor.
- 4.6.5 The construction compound(s) will have a paved surface to vehicle maintenance and fuel storage areas, with a closed drainage system equipped with both silt settlement facility and an oil interceptor, where necessary.
- 4.6.6 Plant and equipment will be stored in areas which are less susceptible to possible pollution incidents, or on dedicated hard standings. Liaison with the Environment Agency will be undertaken to establish a suitable area and gain approval. The area for the storage of materials and the constructor's compound will be defined within the CPP prior to any commencement of work.
- 4.6.7 Plant will be refuelled in areas approved by the Environment Agency and will use an approved technique. Refuelling will occur in designated areas on an impermeable surface and away from any drains or watercourses. Adequate spill kits will be available in the event of an accident and staff will be made aware of how to respond to an incident. Where appropriate, staff will be trained how to use spill kits in the event of an incident.
- 4.6.8 Storage containers will be clearly marked on the tank and a notice displayed requiring that valves and trigger guns are locked when not in use.
- 4.6.9 Storage areas and containers will be protected against vandalism and unauthorised interference and will be turned off and securely locked when not in use.
- 4.6.10 All topsoil and subsoil would be handled and stored carefully to minimise the potential for damage to the soil structure. A method statement will be produced clearly identifying correct stripping, soil handling, storage, placement and programming requirements to avoid compaction and moving the material in unsuitable weather conditions.
- 4.6.11 Procedures will be put in place to respond to any emergency incidents which may occur on site. All appropriate staff will be trained and made aware of the relevant contingency plans. In the event of an incident the Environment Agency will be notified immediately.

4.7 Handling of Plant and Materials

- 4.7.1 Waste produced on site will be subject to the Duty of Care under the Environmental Protection Act (1990). Liaison with the Environment Agency will be undertaken to ensure that all waste and materials handled on site will be conducted appropriately, this will involve a site meeting with the local Agency officer before work commences.
- 4.7.2 Waste transported to and from the site will follow the Duty of Care requirements for ensuring waste is transported by registered carriers, taken to appropriately licensed facilities and for completing and keeping appropriate waste transfer documentation. The Site Manager will be required to maintain documented evidence that these requirements are being met, including a register of carriers, disposal sites (including transfer stations) and relevant licensing details for each waste stream. Waste contractors who remove waste will be registered with the Environment Agency.
- 4.7.3 All deliveries on site will be supervised by a responsible person and storage tank levels will be checked before delivery to prevent overfilling and that the produce is delivered to the correct tank.

4.8 Health and Safety Management

- 4.8.1 'The Applicants' are committed to promoting a positive safety culture. The enforcing authority for health and safety on construction sites is the Health and Safety Executive (HSE) who will be notified of all construction works prior to their commencement on site.
- 4.8.2 The Site Manager will maintain a register of accidents, incidents, near misses and complaints. Contractors failing to maintain the required safety standards may be excluded from the approved tender list for future work.
- 4.8.3 All works will be carried out in accordance with all legal compliance and all other acts, regulations and Codes of Practice and site rules relating to the works will be observed.

4.9 Security On-Site

- 4.9.1 Only authorised persons will be allowed on the site. The CPP will detail how security will be managed on the site. Any person identifying unauthorised personnel on-site should contact the Site Manager who will take appropriate action and ensure the unauthorised person leaves the site safely.
- 4.9.2 Two metre high security fencing will be erected around all site compound areas.

4.10 Considerate Constructors

4.10.1 In order to maintain a high standard of good practice on the project, the Principal Contractor will be required to sign up to the Considerate Constructors Scheme and will adhere to the schemes code of practice outlined below:

- **Consideration:** All work to be carried out with positive consideration to the needs of all potentially affected parties and the environment in general;
- **Environment:** Minimising noise and dust from construction, use of local resources where possible, attention to waste management, avoidance of pollution and encouragement of recycling.
- **Cleanliness:** The working site is to be kept clean in good order at all times.
- **Good Neighbours:** Full and regular consultation with neighbours regarding programming and site activities.
- **Respectful:** Respectful and safe standards of dress shall be maintained. Lewd or derogatory behaviour will not be tolerated under threat of severe disciplinary action.
- **Safe:** Construction operatives and site vehicle movements are to be carried out with great care and consideration for the safety and security of the general public and site personnel.
- **Responsible:** Considerate Constructors will ensure that all site personnel and any other persons working on the site understand and implement the obligations of the Code.
- **Accountable:** Posters relating to the scheme will be displayed around the site including within adjacent community areas giving names and telephone numbers of staff who can be contacted in response to issues raised by the general public or other persons affected by the site operation.

4.11 Phase-specific Construction Phase Plan (CPP)

4.11.1 The site will have differing impacts on neighbours and the surrounding environment. A site specific CPP will need to be prepared with regard to this CEMP and agreed prior to commencement onsite to ensure all specific matters are addressed for that reserved matters application.

4.11.2 The key issues to be included within the CPP for each phase are set out below:

- (a) Confirmation of access arrangements including traffic management and highway signage.
- (b) Haul Routes
- (c) Predicted traffic movements to/from the site, and vehicle types.
- (d) Parking and Loading Areas, including construction and personnel vehicles
- (e) Delivery Times and Handling Procedures
- (f) Dust Management and Wheel Washing
- (g) Arrangements for cleaning the public highway
- (h) Location of contractor site offices, plant/ equipment storage areas and site compounds,
- (i) Details of any specialist equipment required, which is not listed within Table 3.2 of this CEMP.
- (j) Details of piling methods (if required in that phase, no piling required for enabling infrastructure works)
- (k) Noise and Vibration Control Measures
- (l) Odour Control
- (m) Site Lighting
- (n) Screening and Hoardings

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- (o) Waste/Recycling arrangements
 - (p) Protection of the 8m buffer zone to any watercourse (This area to be fenced from main site area if required)
 - (q) Public Highways
 - (r) Information signage for neighbours / interested parties.
 - (s) A construction programme and description of works
 - (t) Points of Contact, including nominated Site Manager, and staff responsible for environment management
 - (u) Complaints Procedures
 - (v) Considerate Constructors

4.11.3 The CPP will need to be approved.

5 Environmental Control Measures

5.1 Public Access and Traffic Management

- 5.1.1 Construction traffic associated with the proposed development will access the site via Chain Road. All goods deliveries will be directed to a designated area on site where all vehicles will be unloaded and the materials taken to the appropriate storage area.
- 5.1.2 Where possible, measures will be adopted to ensure that construction traffic travels minimal distances along sensitive routes (residential or congested roads) and those vehicles are kept clean and sheeted when on public highways. Where possible, large-scale vehicle movements will be timed to avoid peak hours on the local road network;
- 5.1.3 Action will be taken to minimise and control any nuisance arising from construction traffic by using measures such as controlling vehicle speed, use of road sweepers, wheel washing (if required) and keeping all site entrances clean.

5.2 Waste and Materials Management and Storage

- 5.2.1 Waste produced on site will be subject to the Duty of Care under the Environmental Protection Act (1990). Liaison with the Environment Agency will be undertaken to ensure that waste and materials handling on-site will be conducted appropriately, this may include a site meeting with the local Agency officer before work commences.
- 5.2.2 The transportation of waste to and from the Site will comply with the Duty of Care requirements. These include ensuring waste is transported by registered carriers, disposal to appropriately licensed sites and maintenance of appropriate waste transfer documentation. The Site Manager will audit waste carriers and disposal facilities and maintain documentary evidence that these requirements are being met, including a register of waste carriers, disposal sites (including transfer stations) and relevant licensing details for each waste stream. Waste contractors who remove waste will be registered with the Environment Agency.
- 5.2.3 As a part of the overall site infrastructure, the site is to be regraded. Where possible, excavated materials will be re-used on-site as general or landscaping fill (dependent on its quality). Any contaminated spoil will be removed and taken to an appropriately licensed waste facility for treatment or disposal.
- 5.2.4 [A waste management strategy has been produced for the development which outlines measures to ensure that the principles of the waste hierarchy are adopted on-site with waste generation being minimised and waste recycled/reused as much as possible and handled and managed to avoid nuisance and health risks.](#)
- 5.2.5 A strategy to minimise the use of resources and materials and use raw materials that have a lower environmental impact will be adopted for the construction of the development.
- 5.2.6 Materials used during the construction works such as oil, chemicals, cement, lime, cleaning materials and paint have the potential to cause serious pollution. Therefore, the Environment Agency's Pollution Prevention Guidance and other relevant guidance will be followed during the handling, storage and use of such materials.
- 5.2.7 Plant and equipment will be stored in areas which are less susceptible to possible pollution incidents, or on dedicated areas of hard standing. All static plant shall be placed with drip trays to prevent ground contamination as a result of oil spills and leaks.
- 5.2.8 Refuelling of plant will be undertaken in designated areas on an impermeable surface and away from any drains or watercourses. A spill kit will be available for use in the event of an accident. Refuelling will always be carried out in a controlled manner with absorbent materials available to clean up any

spillages. All deliveries on site will be supervised by a responsible person and storage tank levels will be checked before and during delivery to prevent overfilling and that the produce is delivered to the correct tank.

- 5.2.9 A bunded storage area [will be located on-site in the secure site storage compound](#) and will be provided for the duration of the construction period for the storage of oils, fuels, chemical and other hazardous construction materials. The base and bund walls of the storage area will be impermeable to the material stored and will be of adequate capacity to comply with best practice guidelines.
- 5.2.10 Storage containers will be clearly labelled and a notice displayed requiring that valves and trigger guns be locked when not in use. Storage areas and containers will be protected against vandalism and unauthorised interference and will be turned off and securely locked when not in use.
- 5.2.11 Leaking or empty oil drums will be removed from the Site immediately and disposed of via a suitable licensed waste disposal contractor.
- 5.2.12 Additional control measures relating to the use of hazardous substances are provided below.
- 5.2.13 Procedures will be set in place to respond to any emergency incidents which may occur on the Site. All appropriate staff will be trained and made aware of the spill contingency procedures set in place. In the event of an incident the Environment Agency will be notified immediately.

5.3 Noise and Vibration

- 5.3.1 The construction works will comply with *BS 5228: Noise and Vibration control on construction and open sites* and the following generic mitigation measures are likely to be adopted:
- Modern, silenced and well-maintained plant will be used at all times, conforming to standards set out in the EU Directives;
 - Percussive plant will be avoided where alternative non-percussive plant is available for a given task;
 - Equipment and vehicles to be shut down and turned off when not in use;
 - Semi-static equipment is to be sited and oriented as far as is reasonably practicable away from noise sensitive receptors and will have localised screening if deemed necessary;
 - Where possible, mains electricity to be used instead of generators;
 - The preferred method of piling is bored piling. However, percussive piling shall be considered where ground conditions preclude the use of other methods or where sheet piling is required for temporary works, and prior agreement should be sought from the local authority;
 - Burning equipment will be used in preference to cold cutting where possible;
 - Where possible, crunchers should be used in preference to pneumatic breakers. Where breakers are used, they should be of a suitable size for the task.
 - Large concrete pours (for which an extension of working hours may be necessary) will commence as early as possible within normal working hours so that activities can be completed within normal working hours as far as possible;
 - Where necessary, any permanent noise barriers (i.e. earth bunding, site hoardings etc.) would be constructed as early as possible in the construction programme;
 - Cutting operations or other noisy tasks will be minimised through off-site fabrication where practicable. Localised shielding of noisy operations may be required;
 - Wherever practical, noisy works, which are audible at the site boundary, will be undertaken during the following hours (unless otherwise agreed with the Local Authority) - between 07.30 and 18.00 Monday to Friday and between 07.30 and 13.00 on Saturdays;
 - The hours of operation will be restricted as indicated in Section 4.4;

- Routes and programming for the transport of construction materials, fill, personnel etc. are to be carefully considered in order to minimise the overall noise impact generated by these movements;
- Personnel will be instructed on Best Practice Mitigation Measures to reduce noise and vibration as part of their site induction training;
- Shouting and raised voices shall be kept to a minimum. Use of radios is to be prohibited except where two-way radios are required for reasons of safety and communication; and
- Strict controls on the sequencing of works and providing noise protection would be developed on an activity by activity basis.

5.4 Dust & Air Quality

- 5.4.1 During the construction phase, there will be various site clearance works and activities undertaken, which all have the potential to generate particle emissions arising from dust and smoke.
- 5.4.2 The main sources of particle emissions during construction activities include:
- Haulage routes, vehicles and construction traffic;
 - Materials handling, storage, stockpiling, spillage and disposal;
 - Site preparation, earthworks and restoration after completion;
 - Construction and fabrication processes; and
 - Internal and external finishing and refurbishment.
- 5.4.3 Suitable dust monitoring devices to be operated throughout the construction phase and positioned to ensure that airborne dust moving towards the closest significant receptors is captured. The results of this monitoring should be made available to the local authority throughout the works period. Where necessary, additional measures will be developed to ensure that the effects of development related dust is minimised further.
- 5.4.4 In addition to monitoring, a number of other mitigation methods will be implemented to minimise the nuisance and impact arising from dust and smoke produced during construction. These include:
- vehicles carrying loose aggregate and workings will be sheeted at all times;
 - implementation of design controls for construction equipment and vehicles and the use of appropriately designed vehicles for materials handling;
 - completed earthworks will be covered, seeded, or vegetated where appropriate and practicable in relation to the phasing of the development;
 - regular inspection and, if necessary, cleaning of local highways and site boundaries to check for dust deposits (and removal if necessary);
 - minimise surface areas of stockpiles (subject to health and safety and visual constraints regarding slope gradients and visual intrusion) to reduce area of surfaces exposed to wind pick-up;
 - where appropriate, windbreak netting/screening will be positioned around material stockpiles and vehicle loading/unloading areas, as well as exposed excavation and material handling operations, to provide a physical barrier between the Application Site and the surroundings;
 - where practicable, stockpiles of soils and materials will be located as far as possible from sensitive properties and ecological receptors (i.e. watercourse(s)), taking account of prevailing wind directions and seasonal variations in the prevailing wind;
 - during dry or windy weather, material stockpiles and exposed surfaces will be dampened down using a water spray to minimise the potential for wind pick-up;
 - use of dust-suppressed tools for all operations;
 - ensuring that all construction plant and equipment is maintained in good working order and not left running when not in use;

- Restrict on-site movements to well within site and not near the perimeter, if possible; and
- no unauthorised burning of any material anywhere on site.

5.5 Ecology & Biodiversity

- 5.5.1 Prior to the commencement of the construction, a phase specific Ecological Mitigation and Management Strategy (EMMS) will be prepared and will include measures to mitigate potential effects during the construction phase. The measures included within the phase specific EMMS should be considered when preparing the detailed CPP for each phase.
- 5.5.2 Outlined below are typical measures that will be implemented to minimise the effect on ecology and comply with the relevant planning policy and legislation.
- 5.5.3 The Environment Agency requires an 8m buffer zone to a watercourse, to protect this habitat corridor during construction, and post-development. The watercourse (channel and immediate bankside, 8m buffer zone) will be excluded from the construction area and standard pollution prevention measures (as detailed elsewhere within CEMP) will be used during the construction phase to prevent degradation of habitat quality. This area will be fenced to demark the area from the main site development area. Additionally, tree protection will be installed in accordance with BS5837:2012 to avoid damage to the mature trees which line the watercourse corridor.
- 5.5.4 Measures to protect retained hedgerows / trees on-site will include identifying root protection areas and construction exclusion zones and the provision of protective fencing to form a barrier to construction vehicle movements.
- 5.5.5 The majority of grassland on site will be lost as result of the proposed development and off-site grassland compensation will be provided (in line with the Outline Planning Consent). As such, no specific measures to protect grassland on-site are proposed.
- 5.5.6 Potential effects upon wildlife will be avoided through the following measures:
- no construction works will occur in the proximity to the wildlife (unless agreed under licence from Natural England), where appropriate fencing will be used to delineate exclusion areas;
 - habitat connectivity will be maintained;
 - mechanisms will be put in place to avoid incidental harm wildlife during the construction of initial phases (for example escape routes will be provided from excavations and potentially harmful substances and materials will be securely stored); and
 - where necessary detailed methods for relocation of wildlife will be agreed with Natural England under licence prior to any works being carried out.
- 5.5.7 To ensure that potential effects to bats are adequately addressed the following measures will be adopted:
- During the construction phase, where tree removal and, or selective pruning is required a ground level inspection will be undertaken to confirm the potential for bat roosts to be present.
 - The surveys will occur in association with the relevant phase of works, and the following approach will be taken for trees found to have potential to support roosting bats:
 - Trees assessed as having low potential to support bat roosts ('category 2' as described in Hundt, 2012) will be soft felled by suitably qualified arborists;
 - Trees assessed as having moderate potential to support bat roosts ('category 1' as described in Hundt, 2012) will be subject to a climbing inspection to enable a thorough assessment of potential and the search for evidence indicating the presence of roosting bats. If at this stage the potential is downgraded to low, the trees will be soft felled by suitably qualified arborists. If evidence of bats is recorded further survey will be completed as for high potential trees (see below); and
 - In the event that works will affect trees with high potential to support bat roosts ('category 1*' as described in Hundt, 2012), for example if selective pruning is required to reduce health and safety concerns; trees will be subject to dusk, and or dawn emergence surveys to establish the presence or likely absence of bat roosts. The surveyor completing the re-survey will confirm the number of survey visits, and timing of visits to be completed; and

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- In the event that the presence of a bat roost is highlighted at this stage, the requirement for works affecting the roost would be reconsidered to explore whether adverse effects can be avoided. Where possible, in this scenario proposals would be updated to enable retention and protection of the bat roost. In the event that retention is not possible, a licence would be sought from Natural England to permit works to proceed, the licence application would be subject to a detailed method statement.

5.5.8 Where removal / clearance of habitat suitable for nesting birds such as hedgerow, trees, scrub and tall ruderal vegetation is required, this will be completed outside the main breeding bird season (March-August inclusive) to reduce the risk of disturbing, damaging, and destroying active nests and their occupants. Where this is not possible and areas must be cleared during the main breeding season (i.e. areas along the watercourse where grass snakes were recorded) the habitat will be checked thoroughly by a suitably trained and experienced ecologist for the presence of nests within 24hr of the scheduled clearance. In the event that active nests are identified at this stage clearance in the vicinity of the active nest will be postponed until the nest is no longer active (i.e. the young have fledged).

5.5.9 To minimise the risk of killing and, or injuring reptiles (i.e. grass snake) the following actions will be completed within those areas along the watercourse where grass snakes were recorded:

- Vegetation clearance from habitat suitable for reptiles will be undertaken under an ecological watching brief, during the seasonal period when reptiles are active (i.e. April-September inclusive);
- Immediately prior to clearance the ecologist will complete a fingertip search to detect snakes present in the works area. If detected, individuals will be moved to suitable habitat in the watercourse corridor which will remain unaffected by proposed works; and
- Clearance will then be completed to approximately 200mm above ground level using hand tools, or a mounted flail with clearance undertaken towards retained habitat enabling any reptiles previously undetected to escape towards suitable habitat.

5.6 Contaminated Land Procedures

- 5.6.1 Based on the information available to date, there is no contamination identified within the site. Given the predominantly field nature of the remainder of the proposed development site the presence of contamination sources on site are likely to be limited.
- 5.6.2 It is possible that areas of localised contamination may be encountered during the site preparation and ground works phase that have not previously been identified. Should any areas of contamination be encountered, these will be dealt with in accordance with recommendations outlined within a Remediation Strategy in consultation with the regulators, as appropriate.
- 5.6.3 All the workers on-site will be made aware of potential contamination issues on the site and will use best practice techniques during the construction phase. The operation of construction vehicles and the handling, use and storage of hazardous materials will be undertaken as follows:
- Construction vehicles and plant will be regularly maintained and supplied with spill kits and drip trays to reduce the risk of hydrocarbon contamination;
 - Refuelling should be undertaken in specified areas where there is non-permeable hard standing and drainage passes through an oil interceptor prior to discharge. Drip trays will be installed to collect leaks from diesel pumps;
 - The handling, use and storage of hazardous materials will be undertaken in line with the Environment Agency's Pollution Prevention Guidelines (e.g. PPG2 Above Ground Oil Storage Tanks);
 - Adequate bunded and secure areas with impervious walls and floors, with a capacity of 110% of substance volume, are to be provided for the temporary storage of fuel, oil and chemicals on site during construction;
 - Oil interceptor(s) will be installed on discharge points from any temporary oil storage/refuelling areas;
 - Development of site pollution control procedures in line with Environment Agency's Pollution Prevention Guidelines, and appropriate training for all construction staff.
 - Provision of spill containment equipment, such as absorbent material, on site; and
 - Where possible, store all construction and oil, fuel and diesel materials as far from the nearby watercourses as possible.
- 5.6.4 Hazardous materials proposed to be used during the construction works will be identified and an appropriate Control of Substances Hazardous to Health (COSHH) Assessment carried out. The information will be reviewed every 4 weeks to ensure that any new substances hazardous to health are identified prior to being brought on to the site and that suitable arrangements are made for their storage, use and disposal.
- 5.6.5 The Site Manager will control and monitor the COSHH system. Suppliers must send data sheets for every hazardous substance to the site. The assessment information sheet is completed in conjunction with Supervisors and Safety Managers who then brief the people who will be using the substance, on its safe use, disposal and any emergency procedures. Written records of these briefings will be kept in the COSHH file held on the site.

5.7 Hydrology & Water Quality

- 5.7.1 It is considered important that construction is undertaken with due regard to the water environment.
- 5.7.2 The following generic mitigation measures are proposed to protect the water environment:
- All site works will be undertaken with suitable temporary drainage measures in place and in accordance with the Environment Agency's Pollution Prevention Guidance (PPGs) Notes in order to minimise the potential risk of increased sediment reaching nearby surface waters;

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- Site compounds will not be located not within 10m of a watercourse or on-site drainage ditches;
 - Strict control of the site boundaries will be enforced by the Site Manager, including minimal land clearance and restrictions on the use of machinery near water bodies;
 - Road sweepers should be utilised, where necessary;
 - The design of the SUDS and the use of pollution prevention control measures will ensure that the development does not affect groundwater;
 - Consideration will be given CIRIA 515: Groundwater Control – Design and Practice for any dewatering activities that be required. The water pumped or abstracted during a groundwater control operation (i.e. dewatering of excavations) is legally classified as ‘trade effluent’ and as such a discharge consent will be required from either the Environment Agency or local utility company depending on whether the water is to be discharged to surface water or the public foul sewer respectively;
 - The majority of the site is located within Flood Zone 1. No materials will be stored within the floodplain associated with the watercourse. Potential increases in downstream flood risk will be managed by utilising a combination of the SUDS, including surface water attenuation, permeable paving and swales as appropriate; and
 - Cleared land should be replanted or vegetated as soon as practicable to minimise the extent of exposed land and the volume of surface water run-off.

5.8 Visual Impacts

- 5.8.1 Generally, visual effects will be experienced from a relatively restricted area surrounding the site and the retention of most of the boundary vegetation and much of the vegetation within the site will provide effective screening of the construction activity within the site. This important measure is described in more detail in the following paragraphs. Other specific measures to minimise visual impact during construction will be included for two particular receptors, which are sensitive and in close proximity to the proposals. Appropriate screening will be incorporated into the construction site boundary to minimise visual impact from residential property adjacent to the site boundary. For the remaining visual receptors, no additional specific measures are proposed, either because the retained vegetation will provide sufficient screening or because there are no additional practicable or appropriate measures available. Measures to reduce the visual effects of construction lighting are set out in section 5.9.
- 5.8.2 Some trees and hedgerows will need to be either wholly removed or partially removed to enable the proposed development to take place. However, the majority of trees and hedgerows will be retained helping to reduce the impact of construction works on the setting and views to the Site. Measures to protect trees and hedgerows to be retained will be implemented during the initial site preparation works.
- 5.8.3 All tree works will be carried out by a competent person experienced in arboriculture and in accordance with BS3998:2010 Tree Works Recommendations. The Arboricultural Report should be referred to for further detail in respect of the existing trees and the impact of the Proposed Development on existing trees.
- 5.8.4 Protective fencing will be erected along all hedgerows and trees proposed for retention to prevent accidental damage during construction works.
- 5.8.5 Fencing will be positioned no less than 15m from construction areas. If trees and hedgerows require protection less than 15m away from intensive construction works such as buildings and structures, standard fencing as specified in BS 5837:2012 - Trees in relation to Design, Demolition and Construction will be put in place.
- 5.8.6 Site personnel will be provided with information detailing the requirements of Hedgerow and Tree Protection and details of the Important Hedgerows at the time of the site induction. Information notices shall be placed on the protective fencing in order to inform site personnel of the purpose of the fencing. All tree works should be carried out by a competent person experienced in arboriculture and in accordance with BS 3998 (2010) Tree Works Recommendations.

- 5.8.7 The implementation of these protection measures will be monitored through the CEMP by the Site Manager and should complaints regarding the appearance of the Site be received, the above procedures will be reviewed.

5.9 Artificial Lighting

- 5.9.1 The site is currently unlit and is relatively screened along some of the boundary edges. However, light spill and glare during construction will be minimised by the controlled and sympathetic use of lighting taking into account the location of sensitive receptors both on and surrounding the site. The following best practice measures will be implemented during the construction works:
- Specified working hours – where possible no work outside of the specified working hours will be undertaken at the site during the construction period and careful selection of the location of temporary floodlights and construction compound will be undertaken for each phase, with full details including location and type of lighting set out within the CPP;
 - Lighting to be switched off when not required for construction activities or for security / health and safety;
 - The programme of works will take into account the location of sensitive receptors, in particular the residential properties nearby and ecological species sensitive to changes in ambient lighting levels, pedestrians and road users, through the careful selection of the compound location, restricting hours of operation and through control and careful direction of lighting used;
 - Glare caused by poorly directed security and floodlighting will be minimised by positioning lights to less than 70 degrees and directing lights away from site boundaries;
 - Light spill will be minimised by avoiding poorly sited lights on the site boundary;
 - Sky glow will be minimised by the use of modern light fittings with appropriate shields to avoid light spilling upwards;
 - Where possible, temporary lighting will be avoided in the vicinity of areas identified as being of ecological interest; and
 - Should any form of advertisements be installed to promote the development during construction, such signage should be illuminated in order to minimise glare and follow best practice guidance in ILP (formerly ILE) *Technical Report 5 'Brightness of Illuminated Advertisements'* (ILE, 2001). Particular consideration should be given to the direction of the sign and its resultant light and the maximum luminance of the advertisement. The installation of any illuminated signage would need to be subject to a separate application for advertisement consent.

5.10 Emergency Procedures

- 5.10.1 The main priority is to avoid spillages and emergency situations. This should be achieved through minimising the risk of spillage at source through avoiding the use of polluting materials where possible. Where the use of polluting materials is unavoidable, then suitable containment in a sensible location is essential.
- 5.10.2 In addition, pathways for pollution to escape should be removed and/or easily intercepted. This can be achieved through isolating polluting materials from drainage infrastructure and ensuring that there are appropriate methods for intervention and containment e.g. spill kits and drain covers. General guidance on the prevention of pollution is available from the Environment Agency's Pollution Prevention Guidelines (PPGs):
- PPG1: General Guide to the Prevention of Pollution;
 - PPG6: Working at Construction and Demolition Sites; and
 - PPG21: Pollution Incident Response Planning.
- 5.10.3 A set of standardised emergency response procedures will govern the management of environmental incidents. Construction contractors will be required to adhere to and implement these procedures and ensure that site operatives are familiar with the emergency arrangements.
- 5.10.4 The emergency procedure will contain emergency phone numbers and the method of notifying local authorities and statutory authorities. Contact numbers for key personnel will also be included.
- 5.10.5 Materials should be stored in accordance with appropriate health, safety and environmental legislation.
- 5.10.6 On site storage of chemicals, fuels, etc., will be checked regularly and any container found to be leaking will be removed immediately. Oils should be stored (including bowzers) in accordance with any regulations pertaining to the storage of potentially polluting materials e.g. The Control of Pollution (Oil Storage) (England) Regulations 2001.
- 5.10.7 A Control of Substances Hazardous to Health (COSHH) register documenting all materials stored and safe handling requirements will be kept in the site office. All site staff will be made aware of risks associated with the handling, storage and use of hazardous materials through training sessions.
- 5.10.8 Guidance relating to the storage of contaminating materials in the following Environment Agency Pollution Prevention Guidelines will be followed:
- PPG2: Above Ground Oil Storage Tanks;
 - PPG8: Safe Storage and Disposal of Used Oils; and
 - PPG26: Storage and Handling of Drums and Intermediate Bulk Containers.
- 5.10.9 Refueling, oiling and greasing of plant will:
- Take place above a drip tray or on impermeable hard standing;
 - Be located away from surface water drains; and
 - Be supervised at all times.
- 5.10.10 Spill kits with instructions should be located near areas used for refueling. If a bowser or tanker is used for refueling, then the bowser or tanker should carry an appropriate spill kit. All staff will be trained in the use of spill kits and the correct disposal of used spill control material. Guidance is available from the Environment Agency's Pollution Prevention Guidelines, PPG7: Refueling Facilities.
- 5.10.11 Use of detergents should be avoided as they may compromise the effectiveness of any oil separators or interceptors. A site drainage plan will be kept showing the water interests within and in the vicinity of the site. This plan will include the location of both foul water drains and surface water drains. Spill kits will be kept on site. The precise contents and capacity of the spill kits will depend on the detailed

inventory of products that will be stored and handled on the site, and may include absorbent granules, floating “booms” or “sausages”, drain covers and shovels.

- 5.10.12 The spill kits will be clearly marked and sign-posted, sited close to the area where materials are stored and handled. The spill kits should be subject to periodic inspection to ensure they contain appropriate equipment in sufficient quantities.
- 5.10.13 Spill response training, including the location of spill kits should be recorded on the site plan and correct use of spill kits should be included in induction training. A process of on-going refresher training on pollution prevention should be delivered through ‘tool box talks’.
- 5.10.14 Procedures will be established with a number of specialist spill contractors in the event of a major spill.
- 5.10.15 In the event a spill occurs, the following actions will be taken:
- Stop the source of the spill by up-righting the container, blocking leaks (using compound in spill kit) or shutting off valves;
 - Inform site management immediately;
 - In dealing with the spillage the personal safety of the site-workers and the general public will not be compromised;
 - Block access to all local drains using spill containment materials, booms or drain blockers;
 - Clean up spill using granules / spill clean-up materials;
 - Segregate cleared materials and dispose of in accordance with the Hazardous Waste (England and Wales) Regulations 2005 as amended;
 - If the spill has entered the drainage system, a watercourse, or an area of porous ground/non-hard standing and the site are dealing with the incident themselves it must be reported to Environment Agency and the Site Manager immediately; and
 - In the event of major or complicated spills, the Site Manager will assess the incident and if appropriate request a specialist spill contractor to attend the Site.
- 5.10.16 Any spillage should be recorded and investigated. Appropriate corrective and preventive actions should be implemented and recorded to reduce the likelihood of such events reoccurring.
- 5.10.17 Health and Safety procedures and processes should be established to minimise the risk of, and the appropriate management of, a fire emergency. Consideration should also be given to the appropriate management of any subsequent fire water (the run-off generated from fire fighting activities), such as temporary storage on-site. This water should be considered contaminated and it has the potential to cause pollution. In developing strategies for dealing with a fire emergency, consideration should be given to minimising the risk to the environment associated with fire water. The guidance on the control of fire water detailed in the Environment Agency’s Pollution Prevention Guidelines PPG18: Managing Fire Water and Major Spillages should be followed as appropriate.

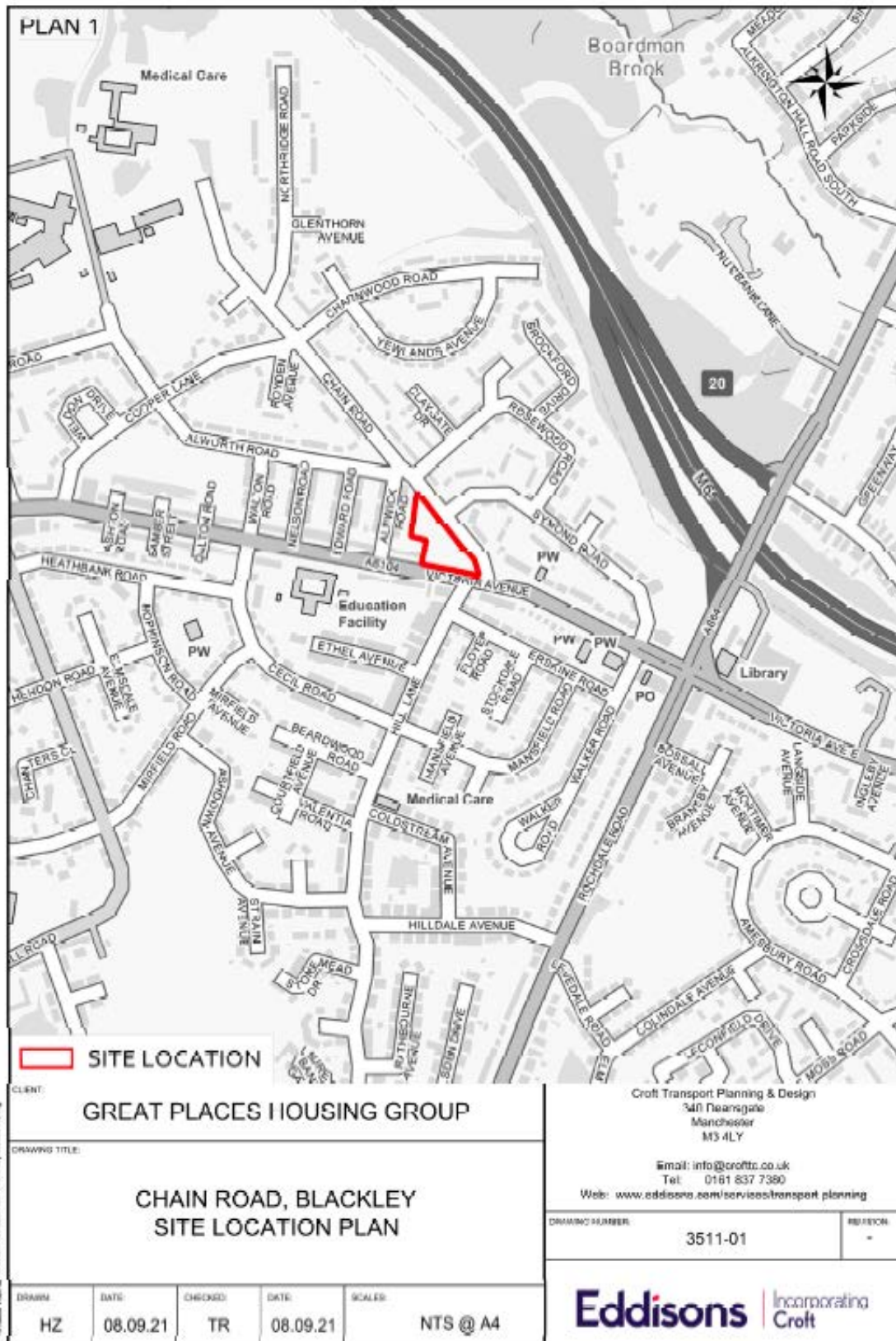
6 Conclusions

- 6.1.1 In order to satisfy Local Authority requirements and demonstrate our commitment to Environmental Management this CEMP has been developed which outlines the environmental principles to be adopted to ensure that potential environmental impacts and health and safety issues associated with the construction processes are effectively managed, minimised and / or eliminated.
- 6.1.2 The plan details the roles and responsibilities of the applicant, individual developers, the site manager and site workers and how these controls are to be implemented. The CEMP is an overarching document with a CPP to be compiled prior to commencement of each phase which will be required to accord with the requirements of the CEMP. The CEMP will require regular monitoring prior to commencement of each phase of works and throughout the construction period to ensure potential risks are adequately managed throughout the construction works.

Appendix A

Location Plan Drawing

Relevant Drawing



Appendix B.

Site Layout Plan

Relevant Drawing



Appendix C.

Indicative Site Compound Layout Plan

Relevant Drawing



Appendix D.

Routing Strategy & Swept Path Analysis

Relevant Drawing / Information