

CONSTRUCTION ENVIROMENTAL MANAGEMENT PLAN

Herbert Street, Manchester, M8 0DG



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I. PROPOSED DEVELOPMENT LAYOUT



II. INTRODUCTION

A planning application has been submitted and approved by Manchester Council for the erection of 14 nos. dwellinghouses C3(a) with associated car parking, landscaping and boundary treatment following demolition of existing building.

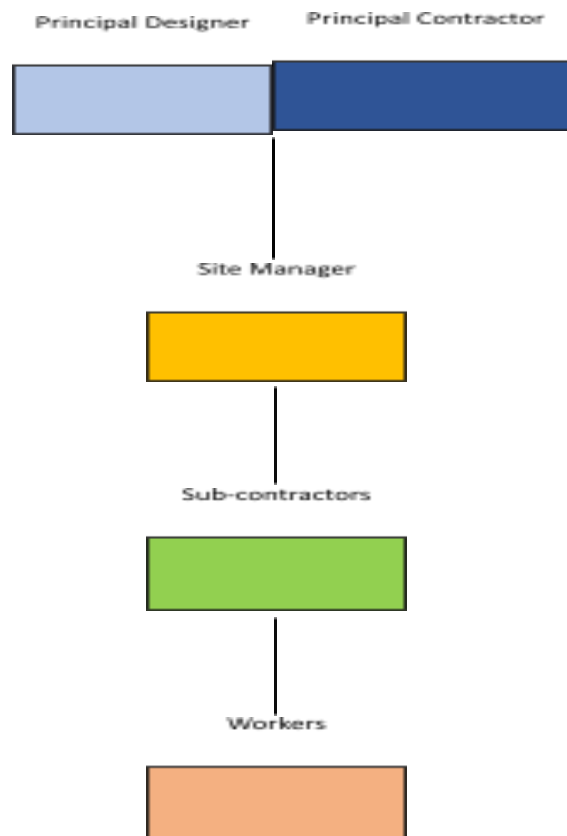
The purpose of this Construction Environmental Management Plan (CEMP) is to:

- avoid, minimise or mitigate any construction effects on the environment and the surrounding community.
- Ensure compliance with all applicable legislation & statutory controls this includes planning conditions, Section agreements and environmental requirements.

- Deliver best practicable environmental performance.

III. *MANAGEMENT STRUCTURE*

1. Project team



2. Responsibilities

Principal Designer

- plan, manage, monitor and coordinate health and safety in the pre-construction phase. In doing so they must take account of relevant information (such as an existing health and safety file) that might affect design work carried out both before and after the construction phase has started
- help and advise the client in bringing together pre-construction information, and provide the information designers and contractors need to carry out their duties
- work with any other designers on the project to eliminate foreseeable health and safety risks to anyone affected by the work and, where that is not possible, take steps to reduce or control those risks

- ensure that everyone involved in the pre-construction phase communicates and cooperates, coordinating their work wherever required
- liaise with the principal contractor, keeping them informed of any risks that need to be controlled during the construction phase

Principal Contractor

- plan, manage, monitor and coordinate the entire construction phase
- take account of the health and safety risks to everyone affected by the work (including members of the public), in planning and managing the measures needed to control them
- liaise with the client and principal designer for the duration of the project to ensure that all risks are effectively managed
- prepare a written construction phase plan (PDF) before the construction phase begins, implement, and then regularly review and revise it to make sure it remains fit for purpose
- have ongoing arrangements in place for managing health and safety throughout the construction phase
- consult and engage with workers about their health, safety and welfare
- ensure suitable welfare facilities are provided from the start and maintained throughout the construction phase
- check that anyone they appoint has the skills, knowledge, experience and, where relevant, the organisational capability to carry out their work safely and without risk to health
- ensure all workers have site-specific inductions, and any further information and training they need
- take steps to prevent unauthorised access to the site
- liaise with the principal designer to share any information relevant to the planning, management, monitoring and coordination of the pre-construction phase

Site Manager

- Promote a positive health and safety culture by creating an interest and enthusiasm for health and safety in all activities and set a good example (including wearing appropriate protective clothing and equipment).
- Ensure everyone on site is aware of their responsibilities with regards to health and safety.

- Ensure compliance with the Company policies and procedures and reprimand any employees for failure to satisfactorily discharge their responsibilities for health and safety.
- Co-operate with the Principal Designer.
- Ensure that inspections and audits are carried out as required.
- Ensure that a risk assessment has been carried out for any equipment, work activity or substance hazardous to employees' health and safety, ensure appropriate control measures, training, instruction, protective clothing etc, have been provided and that there is supporting documentation.
- Ensure that all plant/equipment/machinery (including office equipment) is safe, fitted with any necessary guards or safety devices and is serviced and maintained as recommended by the manufacturer (including testing for electrical safety as required by the relevant Regulations).
- Ensure that sites/ offices are laid out and maintained to secure site safety, clear access/egress/emergency routes and that suitable welfare facilities are provided and maintained.
- Ensure there are sufficient first aiders on site; that there are suitable first aid facilities on site; and that notices giving the location of the nearest hospital with accident and emergency facilities are clearly displayed in appropriate locations.
- Ensure all reportable accidents/incidents are immediately notified to the appropriate persons.

Sub-contractors

- make sure the client is aware of the client duties under CDM 2015 before any work starts
- plan, manage and monitor all work carried out by themselves and their workers, taking into account the risks to anyone who might be affected by it (including members of the public) and the measures needed to protect them
- check that all workers they employ or appoint have the skills, knowledge, training and experience to carry out the work, or are in the process of obtaining them
- make sure that all workers under their control have a suitable, site-specific induction, unless this has already been provided by the principal contractor
- provide appropriate supervision, information and instructions to workers under their control

- ensure they do not start work on site unless reasonable steps have been taken to prevent unauthorised access
- ensure suitable welfare facilities are provided from the start for workers under their control, and maintain them throughout the work
- In addition to the above responsibilities, contractors working on projects involving more than one contractor must:
- coordinate their work with the work of others in the project team
- comply with directions given by the principal designer or principal contractor
- comply with parts of the construction phase plan (PDF) relevant to their work

Workers

- only carry out construction work if they have the relevant skills, knowledge, training and experience - or they are provided with the training and supervision that enables them to do it safely and without risk to health
- make themselves aware of the health and safety risks involved in work on every site and the way those risks are managed
- always follow site rules and procedures
- cooperate with other dutyholders, such as the contractor in control of their work and the principal contractor (who controls the overall project when there is more than one contractor)
- report any risks they find to whoever controls the work on site, whether the risks affect their own health and safety or anyone else, including other workers and members of the public

IV. CONSTRUCTION ACTIVITIES

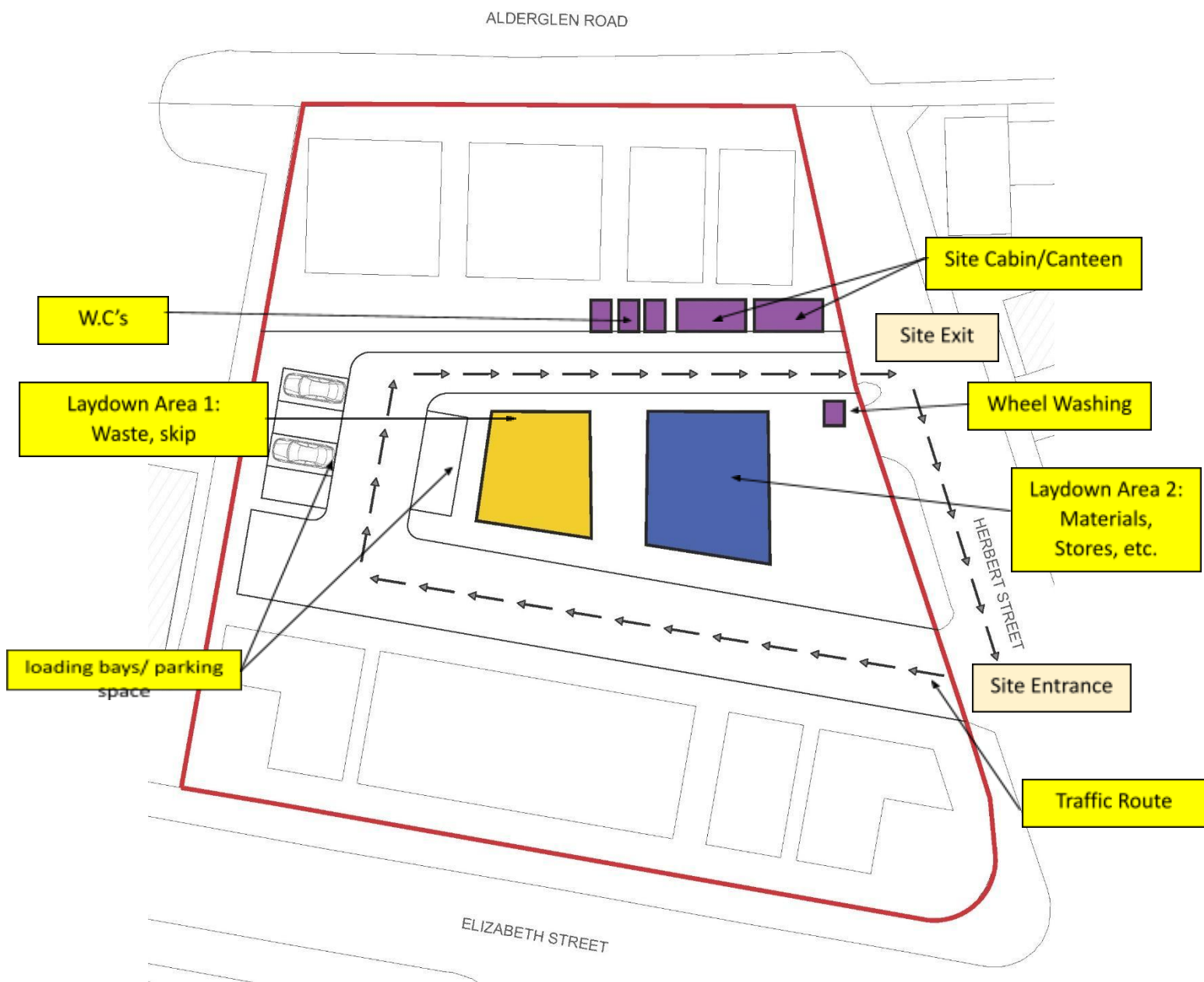
1. Overview

The development comprises the construction of a residential building of 8 nos. residential units with associated access, parking, landscaping, cycle and bin store.

Stage 1 (clearing of site) current site includes large overgrown vegetation which need clearing in preparation for site works and hording.



Site Location Plan/ Access-Egress



Overall Site Layout

Construction activities will include:

Site establishment

- a) Removal of overgrown vegetation and clearing of site
- b) Installation of site security fencing
- c) Site strip and removal of waste arising from site
- d) Installation of site accommodation, welfare and one onsite parking space

Ground works

- a) Excavations for new drainage
- b) Construction of driveway and pavement
- c) Excavations for and casting of concrete foundations
- d) Ground floor construction
- e) Excavations for installation and connection of new utility services

Super structure works

- a) Masonry external wall construction
- b) Scaffolding
- c) Carpentry
- d) Roof tiling
- e) Rendering
- f) Plumbing and electrics
- g) Plastering
- h) Flooring and tiling
- i) Decoration.

External works

- a) Fencing and replacing existing site gate
- b) Landscaping

Typical construction traffic:

- a) Cars, vans, trucks, lorries, excavators, dumpers, piling rig, tele handlers, mobile cranes, road sweepers.

The construction workforce peak is anticipated to be 9 personnel; however average numbers would be of the order of 4 to 7.

2. Environmental Impacts

A register of environmental impacts shall be produced and maintained for the life of the project. This Register will be used to inform the environmental procedures and provide a tool for construction teams when preparing construction method statements or field briefings.

Risks will be identified under the following general headings:

- a) Air Quality & Emissions.
- b) Noise & Vibration.
- c) Use of hazardous materials.
- d) Waste management.
- e) Wildlife/ biodiversity.
- f) Ground conditions/ contamination.
- g) Disposal/discharge of water.
- h) ACMs.
- i) Protection of the public.

Work activity / package Aspects & Impacts Registers will be developed and provided to all subcontractors. The subcontractor must manage all risks associated with their work activity / package in accordance with this document.

Since contamination is found on site, development shall be implemented based on agreement with local planning authority.

Timescale

Proposed start date September 2023

Proposed Completion date April 2025

3. Risk Assessments and Method Statements

Health and safety hazards and risks will be reviewed at each pre-order sub-contractor meeting. Risk assessments, method statements and safe working practices are to be prepared 7 days in advance of commencement of the operation on site. All risk assessments are to include reference to known environmental issues.

Risk assessments and method statements will be recorded and retained on site. Where information is insufficient the contractor shall be contacted and a joint review carried out to establish a suitable safe system of work.

This Section highlights the significant hazards that will be inherited as a result of the existing environment.

Hazard/Risk	Description	Control	Owner i.e PC or Contractor
PUBLIC SAFETY			
(a) Unauthorised Access	Unauthorised persons entering site.	Hoarding/Heras fence to be erected around site set up.	PC and Sub-contractors
(b) Vehicular Movement	Deliveries to site.	Contractor to monitor all deliveries and all unloading.	PC and Sub-contractors
(c) Street works	N/A	N/A	PC and Sub-contractors
ENVIRONMENTAL			
(a) Noise	N/A	No out of hours working.	PC and Sub-contractors
(b) Vibration	N/A	N/A	PC and Sub-contractors
(c) Dust and mud	Contamination of occupied areas from dust etc.	Hoarding to be erected to contain dust etc in construction areas.	PC and Sub-contractors
(d) Contaminated Water	N/A	N/A	
(e) Waste Disposal	Removal of construction debris.	Contractor to supply skips through a registered company.	PC and Sub-contractors
BURIED SERVICES			

Gas	Possibility of damage during excavation.	Area to be cat scanned prior to any excavations being carried out. Hand Digging only around 500mm of services. Permits to dig will be issued.	PC and Sub-contractors
Electricity	AS ABOVE	AS ABOVE	PC
Telephone	AS ABOVE	AS ABOVE	PC and Sub-contractors
Water	AS ABOVE	AS ABOVE	PC and Sub-contractors
Sewers	AS ABOVE	AS ABOVE	PC and Sub-contractors
Wells	AS ABOVE	AS ABOVE	PC and Sub-contractors
Services not plotted	AS ABOVE	AS ABOVE	PC and Contractors
Competence of operatives working on services listed above	Competent operatives to work on services listed.	Only operatives certified to work on services listed will be employed to carry out works.	PC
EMERGENCY SERVICES			
(a) Fire Risk on Site	Possible risk of fire due to hot works.	Hot works permit to be issued prior to any hot works commencing.	PC
(b) Fire Risk to Adjacent Buildings	N/A	N/A	
(c) Fire Escape Blockage	Fire escape routes to be kept in use.	All fire escapes to be kept clear at all times.	PC and Sub-contractors
(d) Access routes obstructed	Materials blocking escapes.	No materials to be stored	PC and Sub-contractors

This section highlights the significant hazards identified by the Principal Contractor and the design team as a result of the design. The Principal Contractor will manage these hazards during the construction process and will ensure that this Section is kept up to date at all times.

5.2.1 Significant Construction Risks	Hazard	Control	Owner
			PC/ Contractor
Site set up (Working in a restricted area)	Unauthorised access into the work area	PC to ensure that the site is clearly delineated and only authorised personnel to enter the work area.	PC
Working at height	Fall of materials or Personnel	Safe access will be provided to all workforces. Competent personnel working in accordance with approved risk assessments and method statements will erect access plant and platforms. All access plant and materials will be both maintained and checked as required.	PC
Overhead Work (Clash of trades)	Fall of materials or personnel	PC to ensure that adequate protection is provided from works being undertaken overhead.	PC
Lifting heavy plant, equipment, and materials	Falling materials / plant	PC is to ensure that competent operators using adequate lifting equipment in accordance with an approved RA/MS carry out all lifting. PC will be responsible for ensuring that copies of operator and plant certification are provided with the RA/MS.	PC
Persons falling down Holes	Service holes and lift shafts	Secure barriers to be fixed around all openings or plates/timber fixed over service holes	PC
Persons tripping/slipping	Fall of persons causing injury	Constant monitoring of housekeeping. Maintaining of access/egress routes at all times.	PC
Falling materials	See overhead work		PC

Manual handling	Dropping material, Crushing, Injury	PC to control the delivery and movement of materials to ensure that the loads being carried by individuals do not exceed those that can be safely lifted / moved.	PC/ Sub-contract ors
Working on live services	Live services	PC to ensure that all areas are surveyed prior to any works being executed. All works will be undertaken by a competent contractor working to an approved RA/MS and in accordance with the procedures contained within this H&S Plan. Permits as detailed within the H & S Manual to be used.	PC/ Sub-contract ors
Demolition	Demolition	PC to ensure that demolition is carried out in a controlled way by competent contractors working in accordance with an approved RA/MS. Demolition areas are to be clearly cordoned off from all other.	PC/ Sub-contract ors
Control of noise	Excessive noise	Ensure that all noisy operations are carried out between the hours of 10am – 5pm. Excessively noisy operations will be subject to noise assessments.	PC/ Sub-contract ors
Control of dust	Dust	Ensure that when dusty operations are carried out that suitable extraction facilities are deployed and that all operatives are wearing the correct RPE Light spray of water	PC/ Sub-contract ors
Disposal of waste	Waste	The site is kept in a clean and tidy manner. All waste is put into a central skip which will be changed as and when required. Site Waste Management Plan to be implemented	PC/ Sub-contract ors
Protection of existing structures	Works	PC will protect any existing structures that may be affected by the works.	PC/ Sub-contract ors
Prevention of unauthorised access	Unauthorised access into the work area	PC will ensure that the site is clearly delineated and only authorised persons allowed to enter the work area. Security guards will be deployed at all entrances.	PC/ Sub-contract ors
Working with or near fragile materials	Fall of persons causing injury	Fragile materials to be identified. Depending on location the use of guardrails, toe boards, barriers, suitable personal suspension and fall arrest equipment will be provided. Method statements & Risk assessments to be provided.	PC/ Sub-contract ors
Storage of hazardous materials	Inhalation, burns, risk of fire	Recommendations as detailed on manufacturers health & safety data sheets on storage to be complied with. Gases and flammable liquids to be stored as required by the HFL DSEA Regs. 2002	PC/ Sub-contract ors

Fire	Fire	PC to produce a fire plan and will ensure that the works are executed in accordance with the procedures set out in the document	PC/ Sub-contract ors

<div> <div>5.2.3 Significant Hazardous Specified Materials</div> <div>Risk</div> <div>Control</div> <div>Owner</div> </div>			
Anchor adhesives	Inhalations of dangerous fumes.	PC will ensure that all such adhesives are installed by competent personnel working to an approved RA/MS, which has been compiled following a thorough investigation of the adhesives COSHH details. The COSHH data sheet will be appended to the RA/MS and retained on site.	
Insulation quilt	Skin irritation etc.	PC will ensure that all insulation is installed by competent personnel working to an approved RA/MS which has been compiled following a thorough investigation of the COSHH details. The COSHH data sheet will be appended to the RA/MS and retained on site in the H&S plan.	PC/ Sub-contract ors
Sealants	Inhalation of dangerous fume, Skin irritation etc.	PC will ensure that all sealants are installed by competent personnel working to an approved RA/MS which has been compiled following a thorough investigation of the COSHH details. The COSHH data sheet will be appended to the RA/MS and retained on site in the H&S plan.	PC/ Sub-contract ors
Silicones	Fumes & Skin irritation etc.	PC will ensure that all silicone is installed by competent personnel working to an approved RA/MS which has been compiled following a thorough investigation of the COSHH details. The COSHH data sheet will be appended to the RA/MS and retained on site in the H&S plan.	PC/ Sub-contract ors
Adhesives, Solvent, and Isocyanate based products	Fumes, Skin irritation etc.	PC will ensure that all adhesives, solvent, and isocyanate based products are installed by competent personnel working to an approved RA/MS which has been compiled following a thorough investigation of the COSHH details. The COSHH data sheet will be appended to the RA/MS and retained on site in the H&S plan.	PC/ Sub-contract ors
Grout and mastics	Fumes, Skin irritation etc.	PC will ensure that all grout and mastic are installed by competent personnel working to an approved RA/MS which has been compiled following a thorough investigation of the COSHH details. The COSHH	PC/ Sub-contract ors

		data sheet will be appended to the RA/MS and retained on site in the H&S plan.	
Paint and Paint sprays	Fume, Skin irritation etc.	PC will ensure that all paint and paint sprays are applied by competent personnel working to an approved RA/MS which has been compiled following a thorough investigation of the COSHH details. The COSHH data sheet will be appended to the RA/MS and retained on site in the H&S plan.	PC/ Sub-contractors
5.2.4 Significant Hazardous Methods or Sequences (as a result of the Design)			
Installation of Windows and cladding	Fall of materials or personnel	PC to ensure that adequate protection is provided from works being undertaken overhead.	
Demolition	Fall of materials or personnel Collapse of building	PC to ensure that adequate protection is provided from works being undertaken, works are planned and frequently risk assessed .	
Build of additional floor	Fall of materials or personnel	PC to ensure that adequate protection is provided from works being undertaken overhead.	

V. CONSTRUCTION ACTIVITIES

1. Site working hours

The Control of Pollution Act 1974 contains specific provisions for dealing with noise from construction sites. To help minimise disturbance from construction sites Trafford Council has the power to restrict the times at which noisy works take place.

The approved working hours are:

- a) Monday to Friday start 8:00 am finish 6:00 pm.
- b) Saturdays start 9:00 am finish 2:00 pm
- c) Sundays and Public Holidays - no working

These hours relate to noisy works which are audible beyond the site boundary. Activities outside boundaries not to commence until 8:00 am.

No plant, machinery or equipment associated with such works shall be started up or operational on the development site outside of these permitted hours.

Bank and Public holidays for this purpose shall be: Christmas Day, Boxing Day, New Year's Day, Good Friday, Easter Monday, May Day spring Bank Holiday Monday and August Bank Holiday Monday.

All sub-contractors including suppliers shall be made aware of the permitted working hours as the restrictions also apply to deliveries.

2. Site parking

Four parking spaces and one loading bay will be provided within the site compound. If vehicles are parked in construction areas, for unloading materials and collecting waste, the vehicle must vacate the site as soon as possible.

Any parking that is not associated to deliveries must not park on the full length and on both side of the carriageway fronting Herbert Street.

3. Site traffic, access and egress, loading and unloading, pedestrian routes.

All construction / deliveries traffic movements will be restricted from between 8am to 6pm Monday to Friday and 8am to 2pm on Saturdays, same as working hours.

Access and Egress will be serviced via Herbert Street. An area has been identified where cabins will be located during the plot works. A temporary cabin set up will be installed whilst the primary access is being formed. Route for materials to be moved from site to working area. The permanent roads will be installed up to base layer at an early stage of development. Deliveries will be via the new primary vehicular entrance once formed. Scaffold truck parking will be allowed but by strict approval of the Site Manager.

Vehicle reversing may be required, traffic routes will be determined and maintained. Pedestrian routes will mainly follow the footpaths of the new roads, additional pedestrian routes will be formed as per the draft plan along with any others deemed necessary.

Segregated pedestrian routes shall be created on site. Where pedestrians must cross traffic routes, the crossing point shall be chosen to ensure maximum visibility for both pedestrians and drivers and shall be clearly marked.

Reversing by any vehicle is to be reduced to the minimum possible on this site, where reversing has to be carried out then this will be under the control of a trained banks man where the vehicle has not been fitted with 360-degree vision aids. With the exception of delivery type vehicles all site construction plant shall be provided with 360-degree vision.

Delivery vehicles will not be allowed to block access/egress for residents. For larger deliveries, the Site Manager will need to agree in advance arrangements with the suppliers for wagon driver to park safely away from the site and phone in advance of arrival.

A speed limit of 5 mph will apply to this site; appropriate unambiguous signage will be displayed at the site entrance and at appropriate intervals on roads within the site. Only trained / qualified personnel are to drive and operate construction vehicles, evidence of accredited certificates of competency will be required. All vehicles are to be inspected and serviced at regular intervals. Onsite inspections will be reported to the Site Manager and recorded in the relevant book, held within the H&S system on site. All plant to be fitted with

roll over protection and warning beacons. Cabbed vehicles to be fitted with 360o Mirrors / Cameras/Audible Reversing Warning.

When a vehicle is left unattended, for whatever reason, both during and outside normal working hours, it must be switched off and keys removed to prevent unauthorised use. When not in use machinery is to be returned to designated parking area(s). Vehicle operators must be familiar with and use the designated onsite traffic system. Changes to the traffic system must be clearly communicated, evidenced to all site personnel.

Although loading and unloading activities of material on the adopted highway is not permitted, but in certain occasions where there is no other choice. The developer must first seek approval from the Local Highway Authority in order to implement any traffic management measures to cater for loading and unloading activities on the highway. This may include closing off the adopted footway on the development side with bollards / cones and relevant signage only during when loading and unloading activities on the highway.

No materials carried around site are to be loaded in such a way as to cause restricted vision of the driver of the vehicle. All materials to be transported around site are to be suitably loaded and fully secure.

4. Materials and plans delivery and storage

Loading and unloading of plant and materials shall take place only within the boundaries of the construction site as indicated in the plan. Loading and storage areas will be created on site allowing sufficient area for the requirements of the project. Lorry movements will be fully considered, ensuring safe reversing/ manoeuvring, access and egress. When materials are delivered to the work area they shall be positioned so as not to obstruct vehicular or pedestrian routes or reduce visibility of site traffic and pedestrians.

5. Site Security Hoarding

Prior to commencement on site, all site boundaries shall be made secure and security hoarding installed. Lockable gated access points across Herbert Street will be installed at which pedestrian and vehicular access to the site can be controlled. As the project progresses, security will be monitored and if deemed necessary an appropriate security system shall be implemented.

6. Welfare facilities

This site will have the following welfare facilities. The principal point of access/egress to this area will be from within the site.

FACILITY	USED BY	LOCATION	MAINTENANCE/ CLEANING
Adequate Toilets for anticipated numbers on site, including lockable facility for ladies	All	Site compound	Daily
Canteen for preparation and consumption of food	All	Site compound	Daily
Site Managers Office / Meeting Room	All	Site compound	Daily

7. Wheel Washing

A manual wheel wash (hose and brush arrangement) will be put in place before exiting the site.

Street cleansing vehicle/ vehicles will be deployed if any mud and debris from the development is left on the adopted highway during the activity and not just at the end of the morning or afternoon shift.

Signs shall be available and deploy at the first signs mud being deposited on the adopted highway i.e. slippery road sign with 'Mud on Road' sub plates.

8. Storage of fuels oils and building chemicals

Containers must be stored within a Spill Nappy (or similar), bund or any other suitable secondary containment system (SCS). All containers shall be in a safe place to minimise the risk of damage and locked-off when not in use.

For oil tanks, intermediate bulk containers and mobile bowsters the SCS must be able to hold:

- a) Where one container is being stored - a minimum of 110% of the total volume.
- b) Where more than one container is being stored - a minimum of 110% of the largest container's storage volume, or at least 25% of their total volume (whichever is greater).
- c) For drum storage, the interceptor tray must be able to hold at least 25% of the total storage capacity of the drums.

9. Dust emissions control measures

With regard to nuisance, the methodology in which work activities are undertaken must apply Best Practicable Means (BPM) in order to minimise negative impact on local, sensitive receptors (existing domestic dwellings). The following measures shall be used where necessary in order to prevent noise and dust:

- a) Use sheeted lorries and sealed / covered skips.
- b) Use dust extraction equipment when drilling and cutting.
- c) Damp down haulage roads and stockpiled materials in dry or windy weather.
- d) Sweep access roads regularly.
- e) Grass over topsoil which is being stockpiled for landscaping or off-site re-use.
- f) Locate plant and equipment away from sensitive receptors.
- g) Use screens, including earth bunds to act as acoustic barriers.
- h) Isolate plant and equipment when not in use.
- i) Fit white noise systems on vehicles to reduce noise nuisance when reversing.
- j) Keep engine compartment doors closed.
- k) Limit vehicle movements on-site, i.e. use of one-way system.

10. Waste Management

A full waste management plan will be in place. Waste management location will be as it's shown on the plan. Skip/waste area will be identified for maximising the recycling of waste and separate skips/waste areas will be used to ensure that waste is segregated. All waste will be monitored and reviews will be undertaken. All waste will be covered after being loaded. Before waste is treated and / or removed from the development all subcontractors / waste contractors must provide the project team with legible copies of the following documentation:

- a) Environmental permits (mobile plant licences) and exemption certificates authorising on-site crushing and screening activities.
- b) Waste Carriers Registration Certificates.
- c) Environmental Permits, (Waste Management Licences and PPC Permits).
- d) Notification certificate of exemption from environmental permitting.

The project team and, where applicable, subcontractors will ensure that the removal of all inert / non-hazardous waste is recorded on Waste Transfer Notes. These documents must be kept for a minimum of two years. These documents will be stored on site and made available on request.

Legible copies of all Waste Transfer and Consignments Notes, recording the removal of waste from the development must be issued. This includes waste generated on site by subcontractors). When removing hazardous waste from the development the following Environment Agency Premises Code must be used on all Hazardous Waste Consignment Notes. The burning of materials or waste on site shall not be permitted.

All contaminated waste should also follow Environment Agency Premises Code.

11. Noise and Vibration control measures

- a) No external positioned amplified sound

No amplified sound shall be generated at any time within the site or at any time in the course of carrying out any phase of works for the development. This constraint shall not apply in the event of emergencies or emergency drills to the extent necessary to deal with an emergency or drill, or other health and safety requirements. This constraint will also not apply to the amplified noise generated by construction plant as a reversing alarm.

b) Reversing alarms

All mobile construction plant will be fitted with low noise or “white spectrum” reversing alarms to minimise the annoyance to local residents due to noise generated from construction plant. The requirement for low noise reversing alarms will be placed on all contractors undertaking work activities on the site.

c) Mitigation Measures

All construction contractors will be required to follow standard good construction practice as outlined in BS 5228-1:2009 (Ref. 1) and BS 5228-2:2009 (Ref. 2).

This will include the following measures:

- electrical items of plant will be used instead of diesel plant where possible particularly in sensitive locations.
- plant will be started up sequentially rather than all together.
- internal haul roads will be well maintained and avoid steep gradients where possible.
- loading/unloading activities will be located away from residential properties and shielded from those properties where applicable.
- drop heights of materials will be minimised.
- continuous noisy plant will be housed in acoustic enclosures, where practicable.
- effective exhaust silencing and plant muffling equipment will be fitted and maintained in good working order.
- static plant known to generate significant levels of vibration will be fitted with vibration dampening features.
- equipment will be well maintained and where possible will be used in the mode of operation that minimises noise.
- plant and equipment will be shut down when not in use.
- materials will be handled in a manner that minimises noise.
- noisy activities will be staggered in time and space where feasible.

- A 1.8m High close boarded fence with a density of 10 kg/m² will be erected around the boundary of the site
- noise and vibration will be monitored at the boundary for both the demolition and construction phases where vibration is likely to be the highest
- The noise limits are 75 dB construction noise limit at the boundary. The vibration limit will not exceed 1.0mm/s ppv at the site boundary.



— Site Boundary — Noise Monitoring Stations — Noise Receptors

The Site Supervisor would be responsible for ensuring that the noise levels do not exceed the standards set out in this document. The details of the Site Supervisor would be displayed on the fencing and if there are any concerns

from neighbours, then they would be asked to contact him/her using those contact details.

During demolition, the noisiest activity is expected to be the dismantling of the brickwork walls and the removal of the concrete base using appropriate machinery such as excavators and/or drilling equipment. The receptors would be mainly the local residents.

During construction, the noisiest activity is anticipated to be during the pouring of concrete if large machinery is to be used.

The local residents would be informed of this activity in advance by means of leaflets prior to the works. They would be advised to contact the Site Supervisor directly if they have any concerns.

d) Site Area

All construction/post-operation work activities will be undertaken within the designated operational site boundaries, including areas designed to accommodate stockpiles and haul routes.

e) Training

All site personnel will receive training appropriate to the nature of their roles and responsibility; the training will include specific information in relation to noise and vibration management. All staff will receive induction training that will incorporate environmental awareness training, plus specific training in relation to noise and vibration if their work activities are assessed as being particularly noise/vibration emission prone. On-site 'Tool Box' training will enable site workers to understand how their actions will interact with the environment and potentially impact upon sensitive receptors near to their work areas.

f) Vibration of Piling works

Use of bottom driven piling system will be implemented which is a low noise and low vibration method which has the benefit of producing zero spoil.

12. Measures to identify treat and/ or dispose ACMs

Asbestos Containing materials can be present at an existing building/ Structure or Asbestos can be present in soil as fragments and also as discrete asbestos fibres within the soil matrix.

A demolition/ asbestos survey was undertaken to allow ACM's to be identified, managed and disposed as part of demolition works. During the survey information was collated and recorded about the location and condition of asbestos containing materials and this information was to be used to carry out a risk assessment for each individual occurrence. ACMs was identified at all areas with safe access, recommendations for treatment and removal have been made. There are structurally unsafe areas within the structure. Works on those areas should proceed with caution and recommendation made for an asbestos surveyor to be present to inspect during the dismantling process to areas unsafe to access. All low risk materials to be handled by a trained and competent personnel. Medium risk materials to be removed by a Licenced Asbestos Removal Contractor. Environmental clean at areas will be implemented.

Presence of ACM's in soil shall be investigated by Ground Investigation report. Any soil containing ACM's shall be found present considered as contaminated with asbestos and is classed as hazardous/special waste. Disposal shall be made by as a hazardous/ special waste.

13. Communication with the public

A pre commencement letter drop shall be carried out notifying all direct neighbouring properties of the site start date. Suitable out-of-hours contact arrangements shall be in place in the event that an incident occurs outside of normal working hours (e.g. an alarm sounds, or a break-in is reported). Contact details shall be displayed outside the site. Contacts shall be reviewed and updated in relation to annual leave or other absence of site staff. The Project Team will communicate proactively with any local residents / businesses and other members of the public that may be affected by construction activities. Where construction activities could cause nuisance to the local community, MSN Developments shall contact local residents and any affected businesses, schools or hospitals etc. prior to the activity taking place. MSN Developments shall then ensure that these parties are kept up to date with the progress of the works and the measures that will be put in place to minimise any potential nuisance that may arise as a result of these. MSN Developments shall provide the potentially affected parties with contact details of a member of the management team, should they have any issues or complaints they wish to discuss. Site working staff will encouraged to build and maintain a positive

relationship with the local community to avoid the need for nuisance related complaints. All subcontractors are expected to minimise the impact of their works on the local community. All complaints received will be investigated and a response (even if pending further investigation) is to be given to the complainant as soon as reasonably practicable. Incidents relating to nuisance (e.g. complaints relating to noise, dust, vibration, mud on roads etc. made by the public, clients or Environmental Health Officers) shall be reported internally and recorded.