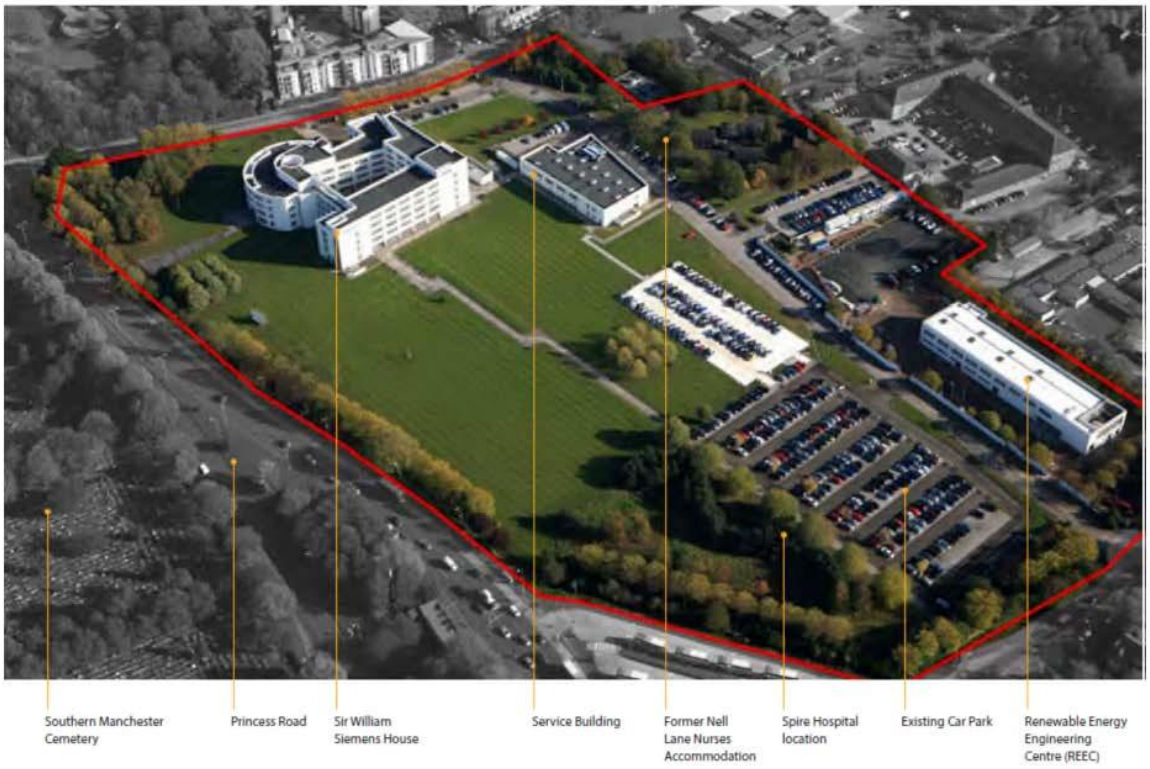
CONSTRUCTION MANAGEMENT PLAN

Siemens PLC
Sir William Siemens House

Siemens Campus



Aerial view of the Siemens Campus

1.0 Introduction

The purpose of the Construction Management Plan (CMP) is to address the detailed procedures, sequencing and construction methodology anticipated by the Project Team engaged in the planning, liaison, and construction of the Project. The plan outlines proposals on but not limited to traffic and environmental management measures to be adopted during construction and provides supplementary information to the Environmental Statement on construction related issues.

It is also designed to be a live document which will eventually address how any changes imposed on the project will be managed or discharged by the construction teams.

It is not to be confused with a Construction Phase (Health and Safety) Plan which will provide the Contractor with a mechanism to comply with its legal responsibilities when acting as Principal Contractor in respect to the Construction (Design & Management) Regulations 2015.

The CMP incorporates but is not limited to the following elements:

- Background and description of the Demolition Works, Road & Car Park Reconfiguration of the facility
- Traffic management considerations
- Environmental management considerations

2.0 Construction Details

2.1 Background

The site forms part of the strategic development site at the Siemens Campus in South Manchester. Siemens developed their UK regional headquarters on the site in the early 1990s which has been in use since that time with other associated buildings being constructed in the intervening period and more recently with the completion of the Spire Hospital development to the south of the site.

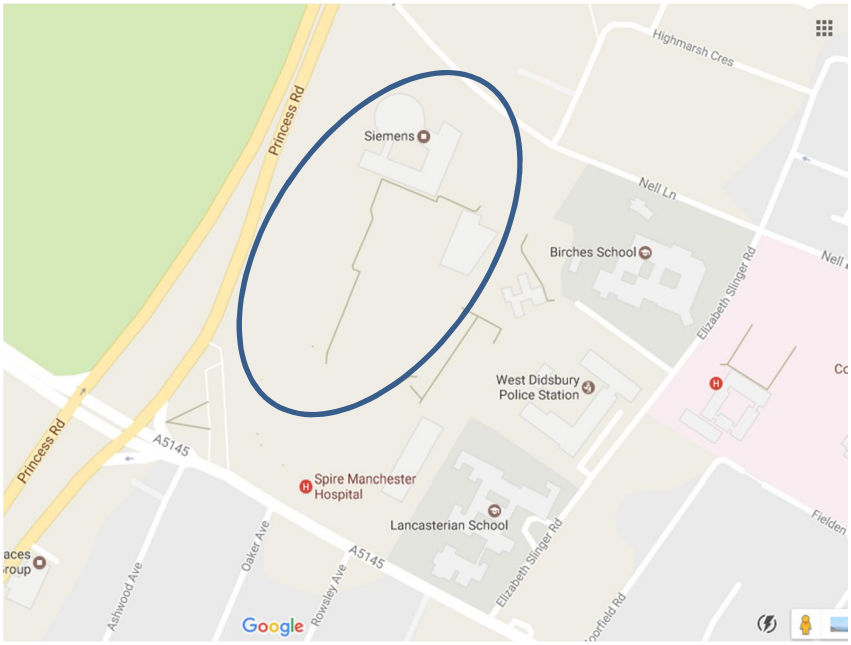
In November 2014, the City Council endorsed a Strategic Development Framework for the site which sets a number of high level development principles for future proposals on the site including the provision of high quality executive and family homes and the opportunity to secure the delivery of a Sustainable Technology Hub, including office and research accommodation targeted at complimentary occupiers

Phase 1 – Commercial development
Phase 2 – Residential development
Phase 3 – Multi-storey carpark
Phase 4 – Commercial development
Phase 5 – Commercial development

2.2 Site Location

The site is at the Siemens campus located between Princess Road, Barlow Moor Road, and Nell Lane and to the east by the Birches School, West Didsbury Police station and the Lancastrian School which all face onto Elizabeth Slinger Road. The site is located to the east of the existing Sir William Siemens House and is accessed from Nell Lane and to the south is the Siemens REEC building and the recently completed Spire hospital.

The site currently comprises the former Nell Lane Nurses Accommodation and Service Building which are vacant and are to be demolished.



2.3 Description of the Site

The site is generally landscaped lawns , existing car parking and associated pedestrian paths Existing buildings include Sir William Siemens House ,Service Building ,REEC building , T2 and Nurses Homes .

2.3.1 Description of the Site

Construction traffic (and ultimately waste vehicles) will use the following route:

1. From various points of departure to A roads and motorways leading to the A5103 Princess Road.

2. Exit the A5103 Princess Road then turn on to Nell Lane.

3. Take the Signed Access Road to the designated Site Compound.

This route and map will be incorporated with ALL material and Sub Contract orders, strict adherence to the route will be enforced.

2.3.2 Proposed Work Area Access

The access to the work areas will be via access gates to the Heras Fencing. These gates will be continually manned during all site operations and suitably trained banksmen will act as Traffic Marshalls. Access gates are shown on the Phase drawings and the Site Traffic Management Plan.

During the construction stage, security will be stationed in the manned access gate to the Site Compound to control personnel and deliveries to site. From this office, the gateman will determine if those coming onto the site have been inducted. If not, they will be directed to the site offices to arrange induction.

Deliveries of Ready Mix Concrete & Bituminous materials will be directed to the appropriate location and an appropriate member of staff will be notified to meet the delivery and arrange offloading.

Regular staff and operatives who have previously been inducted will have their details recorded by the guard. This may involve an ID or numbering system to speed up potential early morning bottlenecks.

2.4 Project Details

2.4.1 Details of Client, Contractors and Consultants

Employer

	Siemens PLC
Address:	Faraday House Sir William Siemens Square Frimley Camberley GU16 8QD
Contact:	James Avery (Employers Representative)
Tel:	07808 825054
Email:	james.avery@siemens.com

Occupants

	Siemens PLC
Address:	Faraday House Sir William Siemens House Didsbury Manchester M20 2UR

Contact:	Michelle Dugdale (Occupants Representative)
Tel:	07808 825730
Email:	michelledugdale@siemens.com

Employer's Agent

	Hdp Associates Limited
Address:	10 Saville Place Clifton Bristol BS8 4EJ
Contact:	Kevin Perriment (Employers Agent)
Tel:	0117 900 1638
Email:	kperriment@hdpassociates.com

Employers Services Consultant

	Qoda Consulting Limited
Address:	21-23 Birmingham Road Sutton Coldfield Birmingham B72 1QA
Contact:	Mark Reeves
Tel:	0121 227 8570
Email:	mark.reeves@quodaconsulting.com

Principle Designer

	Planit-IE LLP
Address:	1 Back Grafton Street Altrincham Cheshire WA14 1DY
Contact:	Mr. E Lister (Principle Designer)

Tel: 0161 928 9281

Email:

.

Principle Contractor

P.P. O'Connor

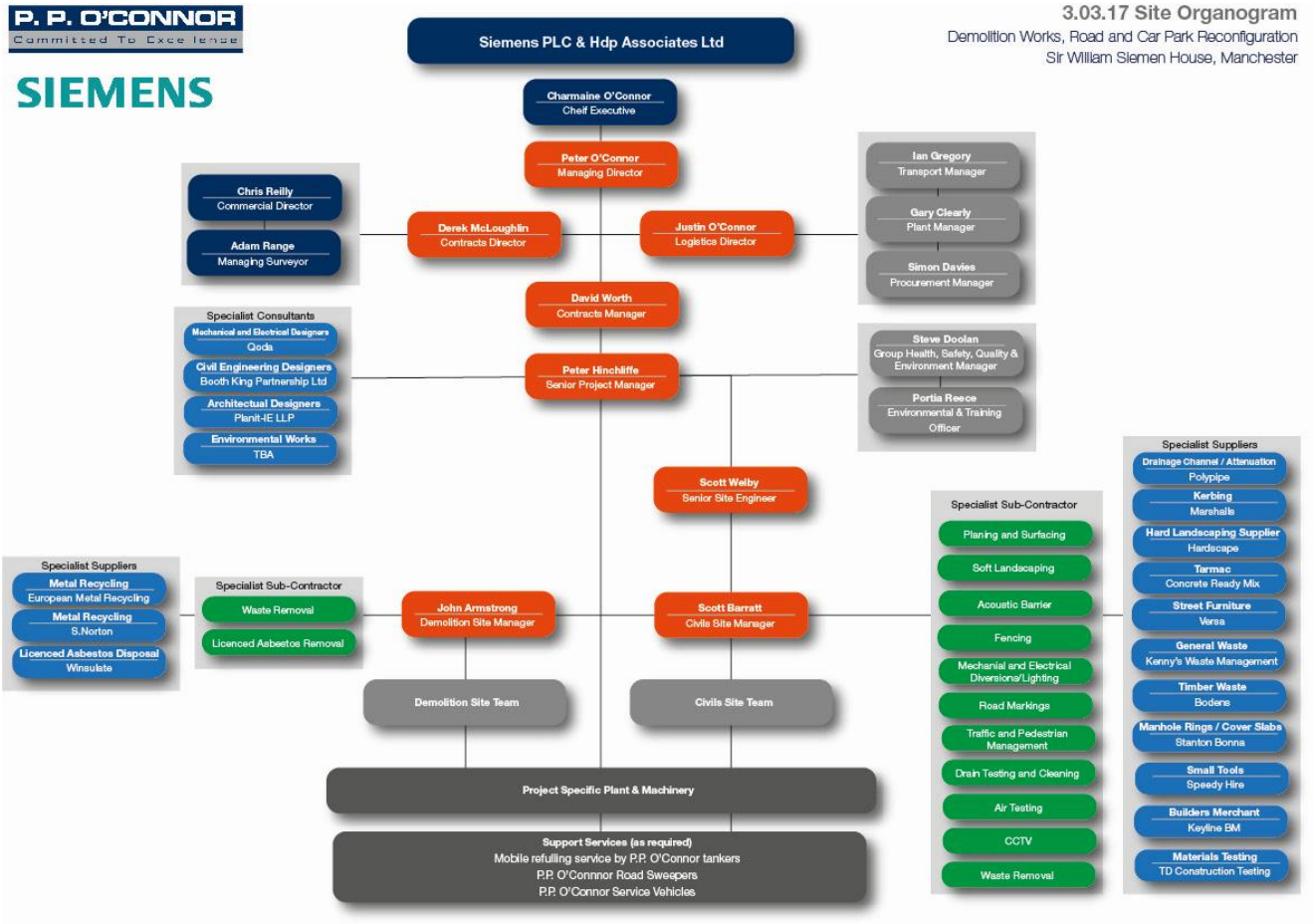
Address: Woodrow Way
Thames Trading Estate
Irlam, Manchester
M44 6NN

Contact: David Worth – Contracts Manager

Tel: 07872 456275

Email: david.worth@ppoconnor.co.uk

2.4.2 Organisation Chart



2.5 Programme

The Construction duration is expected to take approximately 24 weeks from receipt of Order or Letter of Intent. A Detailed construction programme is appended with this document. The programme will be converted to Construction on receipt of the order and issued in an electronic format.

2.6 Working Hours

The Site hours will be from 8am to 6pm Monday to Friday. There will be certain circumstances where the construction work will be required to take place outside of these hours. An example of this is during the period of the proposed Section 278 Works. Traffic Management will need to be established during off peak times.

2.7 Pre-Start Survey

A Pre Start Survey of the works will be carried out prior to construction works commencing. This will consist of but not limited to a photographic report on the existing environment including; existing structures, boundaries, foot paths, roads, excess points, fence lines, walls, buildings , hedge lines, kerb lines, lighting columns, street furniture and road signs. The findings of the survey will be documented and stored within the project offices.

2.8 Construction Site Compounds, Accommodation, Welfare & Storage

The Main Project offices will be established in the existing 87 space car park adjacent to the Nurses Homes for the duration of the construction period. Access to the compound will be controlled by a permanently manned access gate with a signing in procedure

The main office area will be used by both the client and contractors. A suitable Meeting Room will be incorporated within the Site Office Accommodation

Staff and Contractor Car parking will also be incorporated within this area in segregated bays.

All major deliveries of materials will be off loaded in the compound in segregated areas, more preferably however at the workface if possible to relieve on site movements of materials.

Wherever possibly deliveries will be scheduled to arrive on site outside of Peak Times to limit disturbance to Siemens Staff.

Again deliveries will be coordinated with a map denoting permitted routes both on and off site. This map will be incorporated in all material and subcontract orders.

Crane-Off Load of materials will be the preferred method of unloading supplemented with on the dedicated Site Fork Lift.

Materials will be distributed to the relevant works locations utilising the Fork Lift.

Site offices will be constructed from modular anti-vandal containers and may be stacked two tiers high to reduce the overall footprint.

The offices shall be provided with a Silenced Generator power supply, mains metered water supply, mains sewage and electric heating. It shall have excellent natural lighting and adequate means of natural ventilation. All Temporary Electrical Installations to be carried out by suitably qualified experienced Electricians.

The main offices will have integrated welfare facilities including male and female toilets, disabled WC, and kitchen facilities for staff. Operative welfare facilities including drying rooms, mess Room and locker rooms will be provided.

The welfare facilities on site will vary according to the workforce on site but will be provided in

line with CDM (2015) Regulations.

Combined site office and storage areas are show on the attached phase drawings. This area will contain the main offices and provide storage for materials away from the work areas. Segregated waste management and fuel storage areas will be located within these compounds.

Wheelwash facilities will be provided at specific locations again as shown on the attached phasing drawings.

A road sweeper will also be employed on an Ad Hoc basis to ensure that the approach roads are kept to a high standard of cleanliness.

Segregated waste skips will be sited in the Site Compound

The proper management and handling of waste on site is essential to ensure that pollution and increased levels of contamination are minimised.

Effective management of waste on site will consist of the following measures :

- Closed skip containers
- Non dumping/littering policy on site
- Waste segregation
- Regular clean-up of the site
- Careful handling and transportation to avoid damage to raw materials.
- Efficient ordering
- Good housekeeping

Waste minimisation will be encouraged following the 'Hierarchy of Waste' – Reduce, Reuse, and Recycle.

Licensed waste carriers will be used to transport waste of site. Waste transfer notes will be obtained for all waste leaving site in accordance with the Duty of Care requirements.

2.9 Site Infrastructure and Drainage Operations

The proposed car parks and access road will be formed from a combination of bituminous and Pre Cast Concrete Paving. In the main the site's new access road will be constructed of bituminous material. Associated Soft Works, Fencing, High & Low Level Lighting & Landscaping will complement the area.

The provision of a Proposed CCTV Security Scheme along with ANPR controls is to be constructed.

General collection of rainwater across the site road and Car Park areas is via linear channel drains. Surface water drainage will flow to the SuDS Units percolation to the ground.

Various materials including PVC drainage pipework, precast concrete paving, ducts, chambers, kerbs etc. will be delivered to site over this period. These materials will be delivered from various suppliers by a variety of different vehicles. Most will be offloaded in a storage area on in the Site Compound site for use as and when required.

Road surfacing works will require specialist plant including spreaders and rollers to surface the site. Hot bituminous materials will be delivered on covered tipper Lorries. These deliveries will be strictly controlled using dedicated Banksmen.

2.10 Site Infrastructure and Drainage Operations

An additional component of traffic to the site will be the daily arrival of workers in cars, vans and small trucks. Occasional deliveries of small packages will also take place with vans and other light goods vehicles. All construction related traffic will be provided parking within the site compound, including workers personal transport vehicles.

Porta cabins will be required for the site compounds, as well as portable toilets/welfare facilities, and lock up containers – these will be delivered on flatbed trucks and low loaders. A mini tanker will visit site on a weekly basis to clean out the portable toilets/welfare facilities

2.11 Construction Traffic Volumes

Initial site surveys have produced a forecast of the expected volumes to be generated on site. Estimated quantities of waste have been produced and will be monitored throughout the demolition process. The forecasted volumes of waste are listed below:

Metals – Ferrous / non-ferrous:	250 tonnes
Recycled demolition / construction arising's:	5500 tonnes
Spoil:	500 tonnes
General Waste:	200 tonnes
Timber:	50 tonnes
Asbestos:	Not exceeding 2 tonnes

2.12 Site Traffic and Pedestrian Management

All traffic shall enter the site by the access on Nell Lane. The security guard will record the vehicle details and direct deliveries to the relevant area for off load to off load the materials. A segregation barrier will provide a pedestrian route that will lead all pedestrians to the site offices.

Operatives will be asked to identify themselves and show proof of site induction at the security office. Those who have not been inducted will be directed to the site offices to undergo a site induction.

Adequate signage will be sited on the lead up and entrance to site as to enable safe traffic movements on the public highway. These will be in accordance with contract requirements.

All construction vehicles and plant are to be parked in a safe and tidy manner in the site compound. Adequate parking will be provided for the workforce and reserved parking for the client; no private vehicles will be allowed on within Siemens designated parking areas.

Access to site will be through security, which will be located at the site compound, only persons with a valid induction on to the site will be allowed on to the site. Pedestrian routes will be formed to separate pedestrians and site traffic. Suitable crossing points to be selected for road crossings giving the pedestrian a clear line of vision for crossing. Pedestrian access will be formed throughout the site compound area. Pedestrian barriers and signage will be checked daily.

The site will be covered by a 5 mph maximum speed limit. In areas where pedestrians are present, for example in and around the site compound, a maximum speed limit of 5mph will be in place and enforced.

2.13 Overhead Powerlines

No Overhead Powerlines are present however a BT Overhead line has a minimal impact on the existing Siemens Road Nell lane Junction.

2.14 Construction Vehicles

The design of some vehicles presents hazards, such as restricted visibility and lack of driver protection from the effects of over-turning, noise and vibration. Choosing the right vehicle for the job is an essential part of effective vehicle management. The vehicle selected needs to be capable of performing its designated tasks safely. The following are important factors to consider:

- All round visibility for the driver is a minimum on all vehicles.
- All around CCTV and/or convex mirrors to be used.
- Stability under all foreseeable operating conditions.
- Safe access to and from the cab and other working locations.
- Headlights, horn, windscreen wipers and warning devices.
- Protection for the driver from work hazards, falling objects and the effects of the vehicle overturning. (Vehicles to be fitted with falling objects protective structures and roll-over protective structures)
- Protection for the driver from weather, noise, vibration, noxious fumes and dusts.

2.14.1 List of Plant and Materials involved in the Project

- Various size tracked Excavators with attachments
- Rubber tyred excavators
- Various size Dumper trucks
- Fuel bowser
- Fuel tanker
- 6/8 wheeler concrete lorries
- 40ft trailer and lorry unit
- Low loaders
- Roller and compaction equipment
- Rigid lorry
- Road sweeper
- Asphalt spreader
- Other vehicles as required

2.15 Vehicle Inspection and Maintenance

Construction vehicles work in harsh environments and require effective maintenance regimes to avoid developing defects. A programme of daily visual checks, regular inspections and serving schedules shall be established according to the manufacturer's instructions and the risks associated with the use of each vehicle.

Vehicles should have maintenance log to help them manage and record vehicle maintenance operations. Vehicles operators will fill out inspection forms and return them to their employer on a weekly basis, these forms will be discussed at the weekly safety review meeting – tracking of vehicle defects will take place at this meeting. Employers should establish procedures designed to encourage drivers to report defects or problems, and ensure that problems with vehicles are put right. Planned inspection and maintenance needs to follow manufacturer's instructions and include where appropriate.

- Braking systems
- Seat belts
- Tyres, Including conditions and pressures
- Steering
- Convex mirrors, CCTV and other visibility aids

- Lights and indicators
- Safety devices such as interlocks
- Warning signals
- Windscreen washers and wipers
- Firefighting equipment and spill kits
- Condition of cab protection devices
- Functional checks on the vehicle, including controls and starting systems
- Correct location of guards and panels of the vehicles
- Other checks as necessary

2.16 Site Traffic and Pedestrian

These are Site specific traffic rules to accompany general site rules:

General site operatives

- All operatives must undergo site induction
- All operatives to wear appropriate PPE at all times
- All operatives to park in site compound car park
- All operatives to use pedestrian access routes

Plant operators

- All operatives must undergo site induction.
- All operatives to hold valid competency cards (CPCS etc.) for plant they operate and be deemed competent.
- All operatives to park in site compound car park.
- All operatives to wear appropriate PPE at all times, especially when leaving their vehicle.
- Any mechanical plant or equipment found to be defective is not to be used.
- Plant and vehicles to be switched off when not in use
- Do not leave keys in unattended vehicles
- Site vehicles to be used to gain access to work areas.
- Large construction plant to be given precedence at all times.
- Seat belts to be worn at all times.
- Dismount dump trucks when being loaded.
- Site speed limit of 5 mph must be adhered to at all times.
- The minimum distance between moving construction plant is 10 metres.

Visitors

- All visitors will be directed to the site office in the site compound.
- They will be made aware of any hazards on site and will be escorted on site. All visitors will be issued with temporary PPE.

2.17 Stakeholder Communication and Consultation

2.17.1 Communication Consultation Strategy

Open and clear communication with stakeholders is of the utmost importance to ensure that potentially affected parties are kept informed throughout the construction process. The Project Manager will be responsible for managing and coordinating stakeholder issues and communications during construction, involving local residents, elected representatives, schools, businesses, public transport providers and the emergency services. Communication will be established in advance of and during construction to initially provide an overview of the project and to introduce a point of contact should any issues arise.

The emergency services will be invited to the site in advance of works commencing. This will allow them to be briefed on the nature of the project, access arrangements, timescales, workforce numbers and key contacts, in order that they will be better informed to deal with potential incidents both on the work site and the surrounding area.

As part of the construction process, information days will be arranged in local venues to introduce the project to those who may be affected during construction. This engagement with local residents and affected parties will continue in order to provide information on the proposed works, updates on construction programme, and to help manage concerns about future activities.

Road Closures
At present no full road closures are envisaged, however Nell Lane will require Chapter 8 Traffic Management to allow the Section 278 works to be completed. The Traffic Management will be installed by a suitably qualified Subcontractor.

Meetings will be arranged with residents and the emergency services prior to the Section 278 works to help identify particular needs or concerns and to try and address these in the traffic management arrangements. The sequencing and phasing of the works will be advised at this stage so that all stakeholders are aware of the construction process and can forward plan for any personal disruption.

Regular updates will be provided by e.g. by letter drops, e-mail or community meetings to advise how works are progressing and if there are any issues which may affect the programme for completion and the return to normal traffic movements.

Service interruptions
The planned service interruption to the incoming mains water meter replacement will be notified at least 7 days in advance.

2.18 Environmental Management

2.18.1 Environmental Policy

P.P. O'Connor acknowledges that our business has an impact on the environment; we are committed to the care of the environment and the prevention of pollution. P.P. O'Connor acknowledges its responsibility to ensure that all its operations are carried out minimum adverse effects on the environment, managing and reducing this impact through the adoption of the following policy. This policy will be delivered through our ISO 14001 certified management system and requires us to:

- Comply with all legal and other requirements as a minimum standard
- Develop objectives, supported by targets, to manage potentially significant environmental aspects.
- Consider environmental impacts at all stages within our business.
- Continue to improve our environmental performance through effective communication, provision of staff training and adoption of best techniques available.
- Prevent pollution incidents.
- Reduce the amount of waste generated by our activities and the percentage that is sent to landfill and adopt systems for waste minimisation and recycling.
- Be a respectable neighbour by minimising the impact that our activities, site and premises have on local communities.
- Implement performance indicators to measure resource use, waste and carbon emissions to demonstrate environmental improvement.
- Work in partnership with our employees, customers and supply chain to promote

best practice.
- Review the policy on an annual basis and communicate to all employees.
- Ensure this policy is available to clients, our supply chain and to any other interested parties on request.

It is the responsibility of all employees to work to this policy under their collective and individual responsibilities. P.P. O'Connor are committed to ensuring the achievement of continuous improvement in all areas surrounding the Environment. This Environmental Policy Statement shall be communicated throughout the organisation and will be publicly available to interested parties.

2.18.2 Ecology

The Environmental Protection Plan (EPP) describes the conceptual protection measures that will limit the environmental disturbances associated with the projects design. In addition to being suitable for design and construction, these conceptual environmental protection measures can be used for project activities during site clearance, demolition and construction works.

The EPP has been prepared to identify preliminary project environmental mitigation measures to support the project design and planning.

According to the ecological survey carried out by Brooks Ecological, the site is entirely occupied by habitats that have been influenced by activity at the site. These habitats are of low ecological value and are unlikely to pose major constraints on the development.

The full Environmental Protection Plan is appended to this document.

2.18.3 Dust, Noise and Vibration

This management plan relates to the monitoring and management of dust, noise and vibration emissions at the Siemens building Demolition Works, Road and Car Park Reconfiguration Sir William Siemens House, Manchester. Control measures for dust and fine particles are given for specific processes, such as the movement of vehicles and construction plant, materials handling and storage. This Guidance is intended to assist with the control of nuisance dust and fine particle (PM10) emissions, noise and vibration from construction and demolition activities.

The full plan is appended to this document – Appendix A

2.18.4 Arboriculture RAMS and Tree Protection Plan

This management plan relates to the monitoring and management of dust, noise and vibration emissions at the Siemens building Demolition Works, Road and Car Park Reconfiguration Sir William Siemens House, Manchester. Control measures for dust and fine particles are given for specific processes, such as the movement of vehicles and construction plant, materials handling and storage. This Guidance is intended to assist with the control of nuisance dust and fine particle (PM10) emissions, noise and vibration from construction and demolition activities.

The full plan is appended to this document – Appendix A

2.18.4 Environmental Roles and Responsibilities

The site team will be given clear direction on their particular role and responsibility in respect of Environmental Management and implementation of the Environmental Management System. These are summarised as follows:

The Project Manager shall:

- Provide information on contract requirements, including Scope of Works, to the Environmental Officer following contract award and prior to start of works on

site, and also when any changes occur.

- Nominate Environmental Officer and Waste Representative(s).
- Ensure the required consents are in place before work starts.
- Ensure environmental and waste requirements are included on requisitions and in sub-contracts and orders.
- Ensure oil, including diesel, is stored in properly bunded tanks / bowsers / drip trays in accordance with the regulations.
- Ensure Waste Transfer Notes / Hazardous Waste Consignment Notes are checked against invoices before payment.
- Report incidents and non-conformances to the Environmental Officer.
- Ensure the Environmental Officer is informed of any environmental complaints.
- Liaise with statutory authorities and Client as required and ensure records of communication (including verbal communication) are kept. Ensure statutory authorities are always accompanied on site visits.
- Include environmental performance, review of Contract Objectives and Targets (including environmental), review of incidents and non-conformances at the Contract Review Meetings.
- Ensure controls are implemented by employees and sub-contractors to avoid environmental damage and breach of legislation.
- Ensure employees and sub-contractors receive Induction Training (including environmental rules).
- Ensure employees and sub-contractors receive training in spill control.
- Ensure employees and sub-contractors receive Environmental Toolbox Talks as well as Health & Safety Toolbox Talks.
- Verify actions resulting from Corrective Action Requests and Observations raised during audits are completed by the deadlines

2.18.5 Waste Transfer

Sub-contractors shall only transport waste to licensed tips. In this case they must:

- Be in possession of a Waste Carrier Licence.
- Complete Waste Transfer Notes / Hazardous Waste Consignment Notes and submit to the Environmental Officer.
- Only take waste to a licensed Waste Management Site or Waste Exempt Site, as instructed by the site management team.
- Complete Tipping Dockets/Tickets and give to the Environmental Officer.

2.18.6 Environmental Incident Reporting

In the event of an incident, stop work, implement control procedures and report the incident to the Project Manager and Environmental Officer:

- Inform the Site Agent when waste needs collecting.
- Pass any queries or correspondence on environmental issues to the Environmental Officer / Project Manager.
- Work in accordance with Environmental Procedures / Work Instructions, Contract Environmental Plan and Method Statements.
- Method Statement authors will include environmental controls and obtain advice from the Environmental Manager when unsure of requirements.
- The Procurement Department shall include environmental and waste requirements on orders and attach the relevant information.

2.18.7 Concrete Washout

The concrete supplier will be encouraged where possible not to wash out on the site. The preferred method will be for drivers to brush down any surplus concrete left on the chute, prior to leaving the site to return to the batching plant, where they can wash down. This will be agreed with the concrete supplier in advance. Should this not be possible for whatever reason, e.g. delays, distances from the plant etc., trucks delivering concrete will wash out in a designated wash out pit on site.

Designated concrete washout pits will be constructed in suitable areas.

Drivers will be encouraged to be conservative with their water use, should they need to make use of the washout pit. This will limit the volumes of wash water to be dealt with.

Washout pits will consist of excavated pits with an impermeable membrane, all waste to recycling.

2.18.7 Wheel Wash Facility

Wheel washing of both on and off site vehicles will be carried out utilising Jet Washing. All vehicles to be checked for bricks etc. trapped between twin wheels. The Jet Wash Stations are shown on the relevant Phase Drawings but may be repositioned to as the Construction of the Car Parks progress.

2.19 Socio Economic

Socio-cultural / economic impacts during construction will include:

- Effects of the development on local residents
- Effects of the development on the local economy
- Effects of the development of existing infrastructure
- Apart from direct employment, the proposed project is likely to have a number of indirect temporary benefits to the local economy. These will mainly come through the use of local service industries, local supplies of materials and accommodation.

2.20 Natural Resources

Natural resources will be sourced locally where practicable to reduce the impact of transportation. However, due to the specialist requirements of parts of the scheme, this may not always be possible. Mitigation measures will be in place to Minimise wastage, including the reuse of aggregates and Topsoil etc.

The objective will be to conserve natural resources where possible.

Topsoil

Topsoil to be excavated around the site boundary prior or during construction and appropriately stored and sealed.

Timber

Timber will be used for temporary fencing etc. Timber must be derived from a sustainably managed source with a written declaration from the supplier.

Hard Core and Aggregates

The use of stone and hard core will be used for the construction for each part of the contract. Wherever possible recycled materials will be used in the construction of the contract

Energy Use

Energy will be used during construction for:

- Fuel for the vehicles, plant and machinery used on the site
- The transport of materials to the site; and Electricity used for lighting and heating of offices
- Electricity for operation of plant and tools

A variety of machines will be needed during the construction phase. All plant will be serviced regularly to Minimise emissions and inspected before being allowed on site.

Water Use

Water will be used in small quantities for cleaning, toilet facilities, vehicle washing, and dust suppression.

2.21 COSHH and Hazardous Substance Management

All contractors will be required to submit COSHH assessments for review by an appointed member of the site management team. COSHH assessments will be reviewed using information from the material safety data sheet, also submitted by subcontractors.

COSHH assessments will be audited by the Project Manager.

COSHH Assessment must contain the following information:

1. identifying the substance
2. describing how it is used
3. detailing the number and type of employees who are exposed to the risk
4. classifying the hazard (s) likely to be encountered
5. outlining the routes of entry to the body
6. describing the steps to be taken to minimise the risk
7. identifying appropriate local exhaust ventilation, if deemed necessary
8. health surveillance requirements
9. information, instruction and training requirements
10. first aid measures
11. storage requirements

12. disposal recommendations

13. risk level assessment

It will be the responsibility of the all contractors to review and revise their COSHH assessments in the event of ill health or accident, changes in legislation, changes in work procedure, use of new plant and equipment, or other substantive reason.

A register of hazardous substances will be maintained on site for review by the Company Health & Safety Department. Deliveries of hazardous substances will be to suit the requirements of the programme avoiding lengthy storage periods and taking cognisance of shelf life.

Hazardous substances will be segregated, and stored to prevent unplanned escape to the environment. Cement will be stored in a lockable store, whilst liquids will be stored within a bunded facility. All diesel tanks, whether static or mobile, will be fully bunded to retain at least 110% of the volume. Storage facilities will be sited as far as possible from operational processes and existing drains. Inspections will be carried out on bunds and stores on a regular basis with weekly monitoring being documented on the Company 'Weekly Health & Safety and Environmental Checklist'.

Spill kits suitable for the absorption of the stored substance will be maintained at storage areas, and operatives trained in their use.

2.23 Environmental Site Rules

All staff, sub-contractors and visitors will receive a site induction which will contain a significant environmental element, including environmental site rules as follows:

Storage and housekeeping of fuels, chemicals.

- Keep oils, fuels, paints, and chemicals in a secure, lockable and bunded store in the compound.
- Move only minimum quantities of oils, fuels, paints, and chemicals to other areas of the site.
- Refuel / refill in designated areas or compound. Refuel using funnel or nozzle.
- Do not allow diesel to spill on to the ground whilst refuelling. Use a drip tray with absorbent pads.
- If fuel spillage occurs, inform site management staff immediately. Mop up using oil absorbent pads.
- Do not leave unused fuel, oil, paints, or chemicals on site.
- Dispose of oil and used oil filters as Hazardous (special) Waste. Plant fitters must remove used oil and oil filters from site when plant is serviced. Plant should be serviced on a hard standing such as concrete.
- Follow advice in Product/Material Safety Data Sheets with regards to storage, use, and safe disposal of chemicals and paints.
- Bulk fuel tanks must be fully bunded. Seek advice from site management if uncertain.

Management of Wastes

Hazardous (special) waste such as oil, oil filters, grease cartridges, chemicals, paint, empty aerosols and partially empty containers containing these materials must not be thrown in the ordinary skip or bin. Store in separate containers for hazardous waste.

- Do not leave used batteries on site. These contain acid and must be disposed

of as Hazardous Waste.

- Do not burn waste material. Burning of waste on site requires a waste exemption licence to comply with waste legislation. Don't take the risk.
- Waste excavated or generated on site must be taken to a licensed waste disposal facility or waste exempt site.
- Waste carriers must have a Waste Carrier Licence to comply with the law.
- Do not overload trucks, or have debris protruding over the sides of the trucks.
- Keep access routes clean.
- Do not litter the site.

Washing Out of Concrete Delivery Trucks / Concrete Mixers

- Do not wash out concrete delivery trucks close to any drain leading to a waterway.
- Cement is alkaline and kills fish.
- Concrete delivery trucks are to be washed out in designated areas.

Plant

- Plant must be regularly maintained to avoid unnecessary leaks of oils, and emission of excessive smoke.
- Engines should be switched off when the item of plant is not in use.
- Avoid unnecessary revving of engines.

Wildlife

- It is illegal to knowingly disturb nesting birds.
- All care should be taken to avoid disturbance to wildlife. Any sightings of protected species such as Badgers, Otters, Peregrine Falcon or roosting/hibernating bats during construction activities must be reported to site staff immediately.
- Care must be taken not to release harmful substances into the environment since wildlife can be affected.
- Litter can be hazardous to wildlife and should be disposed of properly.

Vegetation

- Avoid polluting the land or vegetation with any fuels, oils, paints, chemicals, or wastes.
- Do not damage existing vegetation that will remain at the end of the works when unloading, manoeuvring, etc.
- Do not damage, disturb, or remove any vegetation unless it is a specific requirement in a Method Statement.
- Do not store materials under the canopy of a tree; otherwise the tree roots may be damaged.
- Access to the site and areas within the site, must only be by designated routes.
- All works must be within the site boundary.

Archaeological and Historic Finds

If bones, coins, broken pottery, burned or blackened material, brick or tile fragments, skeletons, timber joists or post holes, brick or stone foundations, in-filled ditches, or objects of possible historic interest are uncovered you should observe the following rules:

- Stop work and inform site management;
- Do not remove any object from the site;
- Protect the find by fencing / blocking it off;

Noise

- Ensure plant and equipment has properly operating silencers / mufflers. Notify site management if this is not the case.
- Do not leave plant and other vehicles / machinery running needlessly.
- Consider the location of noisy plant in order to minimise nuisance to nearby houses, motorists, and wildlife.

Dust

Dust is a nuisance and can be damaging to humans, machinery, plants and animals.

- Avoid creating unnecessary dust.
- Cover materials which could create dust when windy.
- Dampen down dust in operations which create dust.
- Ensure that vehicles leaving site do not leave mud on the road.

Fire

- Dry grass and scrub vegetation can catch fire very easily at all times of the year.
- Be acquainted with the location of firefighting equipment.
- The main store of firefighting equipment and materials is located in the Site Compound.
- The emergency procedure will be implemented in the case of fire.
- If you see a fire on site or adjacent to the site take action immediately, following the emergency procedure, and inform site management.
- Smoking on site is not allowed this includes Electronic Cigarettes.
- Smoking will only be permitted in the designated Smoking Area

Spillage Response

The most likely incidents to occur on a site will include silt, oil, concrete, grout, cement, and chemical contamination of nearby waterway(s), and contamination of land with oils, chemicals and construction products.

- Identify the cause of the incident and act to try and prevent it worsening. Stop or reduce the flow of diesel, engine oil, hydraulic oil, or chemicals.
- Contain the incident using sand, absorbent pads, or by digging a containment bund.
- Report the incident immediately to site management, explaining the nature, cause, and location. The site management team will then involve other statutory bodies and specialist clean up contractors as necessary.

"Do Not" Instructions

Do not ignore an incident as this will lead to serious disciplinary consequences and possible legal action against the Company, and / or your employer.

The Project Environmental Policy is available for anyone to read. It is displayed in the Site Office. If unsure of environmental requirements, ask the Site Agent.

2.24 Summary of Environmental Aspects

	Description	Tick as applicable (✓)
(1)	Noise generation from construction plant and equipment	✓
(2)	Fuel consumption by construction plant and equipment	✓
(3)	Electricity consumption in offices	✓
(4)	Waste generation in offices and on site	✓
(5)	Hazardous waste generation on site	✓
(6)	Water consumption	✓
(7)	Raw material consumption	✓
(8)	Fuel and oil release from construction plant and equipment	✓
(9)	Discharge of suspended solids	✓
(10)	Possible release of asbestos fibres to the atmosphere (from working with old asbestos pipes or within demolition works)	✓
(11)	Release of chemicals to the environment	✓
(12)	Traffic management	✓
(13)	Release of wash water from concrete delivery trucks	✓
(14)	Release of emissions by construction plant and equipment	✓
(15)	Spills and leaks from construction plant and equipment	✓
(16)	Smoke emission	✓
(17)	Working near wildlife	✓
(18)	Working near protected wildlife	✓
(19)	Working close to trees	✓
(20)	Working through hedgerows	✓
(21)	Working outside 'working area'	✓
(22)	Light emissions from temporary lighting equipment	✓
(23)	Deposition of mud on roads	✓
(24)	Working near foul sewers / septic tanks	✓
(25)	Vehicle washing	✓
(26)	Soil handling and storage	✓
(27)	Dust emissions	✓

2.25 Summary of Appended Documents

- Construction Programme (3.03.13)
- Demolition Method Statement (3.03.06)

- Site transport Management Plan (3.03.18)
- Site Waste Management Plan (3.03.19)
- Ecological Protection Plan - (3.03.20)
- Construction Management Plan (3.03.21)
- Construction Phasing Drawings (3.03.24)
- Construction Phase Health & Safety Plan (3.03.02)
- Arboriculture Method Statement (5.4.4)

Appendix A – Dust, Vibration and Noise Management Plan

APPENDIX A – Dust, Vibration and Noise Management Plan