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Construction Management and Site Waste Management Plans
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Construction Management and Site Waste Management Plans

Regents Wharf,
All Saints Street,
Islington,
London
N1 9RL

25th November 2016
Ref: 8/1396

Prepared on Behalf of:

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Regents Wharf, All Saints Street, Islington, London

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1.0 INTRODUCTION

This report has been prepared on instructions received from the Client and relates to the proposed redevelopment of Regents Wharf, All Saints Street, Islington, London, N1 9RL.

The site currently comprises of five existing buildings, one of six storeys, two of five storeys and two of four storeys. Three of the buildings are to be demolished and replaced by seven storey building for office use. The new proposed floorspace will be situated over a basement, ground and six upper storeys. The remaining buildings are to be renovated. All buildings will be used primarily for office space with addition of some retail and restaurant space at ground floor.

This report sets out the basis of a Preliminary Construction and Site Waste Management Plan required by the Local Planning Authority in support of the planning application for this development. The plan has been prepared in accordance with the general principals set out in the CDM Regulations and Government guidance on Site Waste Management. It has been prepared as a base guidance document only which will be developed in more detail by the Principal Designer and Principal Contractor during the design and construction stages of the project.

This report is prepared solely for the benefit of the Client. This report may not be assigned without prior written permission from Clancy Consulting.

This report is for Planning Application purposes only and detailed development of the Plans will be required for the Design, Tender and Construction stages of the project.

2.0 DESCRIPTION OF PROJECT

2.1 Project description

General scope of works:

Demolition of three buildings to be replaced.

Figure 1 – Existing view from All Saints Street
The buildings marked in yellow are to be demolished and the building marked in white will be renovated.

Figure 2 - Existing building as viewed from Regents Canal Towpath
The building marked in yellow are to be demolished and the buildings marked in white will be renovated.

The development comprises the demolition of 14, 16 and 18 Regent's Wharf; construction of a seven storey building providing Class B1 office floorspace and Class A1/A3/B1/D1/D2 floorspace at ground floor; refurbishment and extension of 10-12 Regent's Wharf to provide additional Class B1 floorspace with ancillary associated hard and soft landscaping.

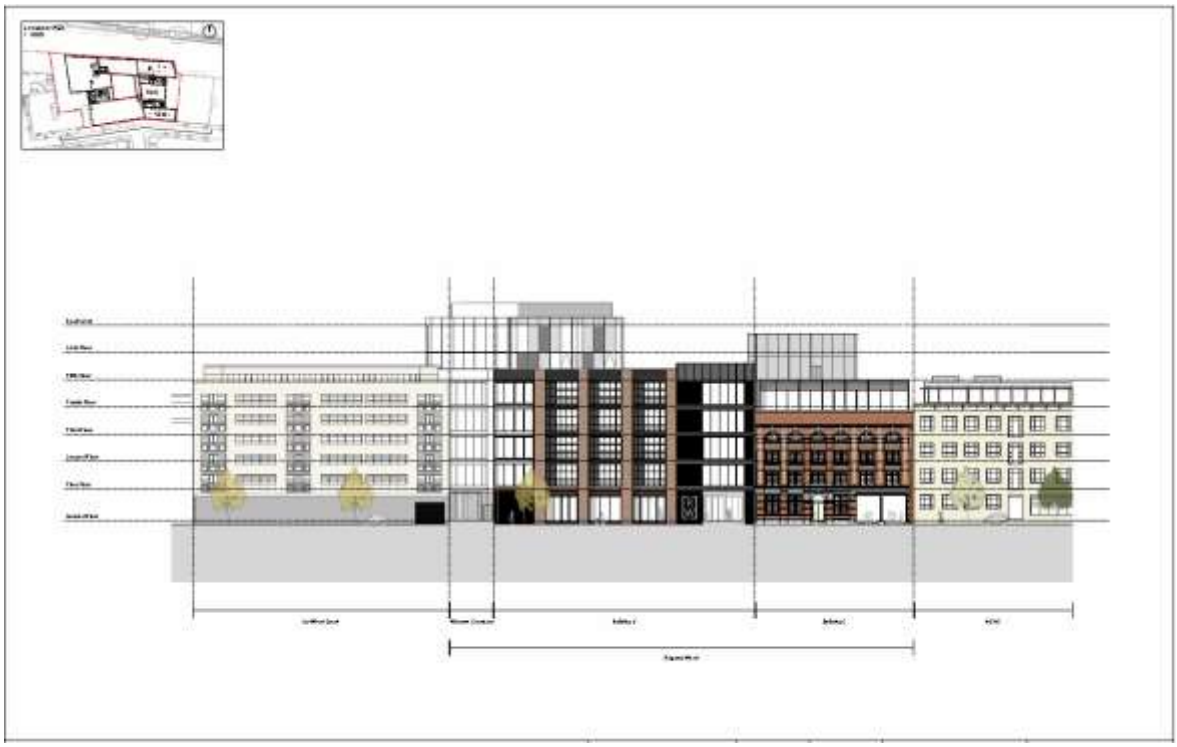

Figure 3 - Proposed scheme frontage from All Saints Street

Figure 4 - Proposed Scheme from Canal

Scope of works includes the following:

- Site set up
- Hoardings to isolate the site
- Erect scaffolding
- Site clearance
- Strip out of existing building
- Phased demolition of existing structure
- Piling operation and construction of concrete or steel frame
- Excavation for basement and foundations
- Construction of a 7-storey building for office and retail use
- Renovation and extension of remaining existing buildings for office and restaurant/retail/leisure/gallery use
- Services for buildings
- Disabled access
- Decorating and fit out

The works specification may be altered prior or during the project. Risks or hazards caused by a change in the specification will be assessed. Means for assessment will be through further risk assessments and a revised safe system of working issued to the Client and Principal Designer for comment and approval.

2.2 Intended end use

The intended end use of the new building will be B1 office floorspace – and Class A1/A3/B1/D1/D2 floorspace at ground floor, while the refurbished buildings will provide Class B1 office floorspace, Class A1/A3 restaurant floorspace and Class A1/B1/D1 floorspace at ground floor.

2.3 Project details

Site start is projected to be approx. end of March 2018 subject to obtaining vacant possession of the site.

Hours of working will be between 0800 to 1800 Monday to Friday and Saturday morning working between 0800 and 1300. No works will be carried out on Sundays or Bank Holidays.

2.4 Project team details

Client – Regents Wharf Unit Trust

Principal Designer – MLM

Principal Contractor – TBC

Principal Contractors Health and Safety Consultants - TBC

2.5 Existing building records

- Building Survey Report by Savills UK Ltd dated November 2014
- Construction Plan Introduction to Scheme by Hawkins/Brown dated July 2016 Ref: HB1641.
- Preliminary Access & Maintenance Strategy by Hawkins/Brown Dated August 2016.
- Bat Emergence Report by RPS dated June 2016 Ref: JSL2617-872.
- Regents Wharf Black Redstart Survey by RPS dated 17/6/2016 ref:- OXF953-R001C.
- Regent's Wharf Black Redstart Survey by RPS dated June 2016 ref OXF9553-R-001-C
- The existing floor plans and topographical survey have been supplied by Technics Geospatial Consultant Surveyors, dated March 2016, project number SP16055.
- Heritage Research by Heritage Collective dated November 2016 ref: Regents Wharf, All Saints Street.
- Virgin Media Asset Plan, dated Dec 2015, ref:-VM134468.
- Historic environment Assessment by MOLA dated November 2016, ref:- PO813.
- Diving Inspection by Northern Divers (Engineering) Ltd, dated October 2010, ref:- ND6189.
- National Grid Asset Plans, dated 2015, ref:- N19RL(AH).
- Thames Water Asset Location Search dated October 2015, ref:- 3840.
- UK Power Networks Asset Plans – dated Nov 2015, ref:- 2015/2205887/comp.

3.0 MANAGEMENT OF THE WORK

3.1 Management structure and responsibilities

Overall management responsibility of this project will be with the Principal Contractor. The following roles will be appointed directly by the company to manage the project day to day.

Site Manger

Health and safety responsibilities and the management of the project and all sub-contractors for the duration.

Emergency Co-ordinator

Ensure the emergency arrangements in place are up-to-date and reflect the site arrangements. All persons should be briefed in the emergency arrangements and inspect any equipment provided on a daily basis. Should an emergency occur, account for all persons employed and contact the emergency services.

Site First Aider

Provide first aid on site. Inspect the first aid provisions weekly to ensure compliance with RIDDOR.

Accident Investigations

Provide guidance and assist with compliance with duties under RIDDOR.

Site Safety Inspections

Complete inspections fortnightly (or more often as site operations dictate). Provide guidance and review health and safety documentation.

3.2 Project monitoring

A site safety register will be introduced by the Principal Contractor which is to be used as a means of recording and reviewing procedures on site.

The site safety register is a source of information and the method of satisfying the obligation under law to maintain certain prescribed registers and certificates, along with the permits or procedures which are generated to achieve higher standards. This includes Hot Work Permits and Working at Height Permits.

The Register is to be followed by all Sub-contracting companies and is controlled by the Site Supervisor. The Register is always available on site. The Register is returned to the clients respective Head offices at the end of the contract and is archived.

The Site Safety Register is a useful tool in assisting with project review throughout the project, as different trades complete their work and its conclusion, so that the lessons learnt in terms of the standards that were set and those actually achieved can be taken forward.

3.3 Health & Safety Aim

Health and Safety management will be planned into the work undertaken on this specific contract to achieve the following;

a) A safe working environment

b) A proactive approach to health and safety by the contract management team

c) An accident free contract

d) To ensure that safety is everybody's responsibility with co-operation throughout the workforce.

3.4 Project Review

The construction phase plan is subjected to review and audit and is carried out on a monthly basis or where site conditions alter.

The construction phase plan will be prepared by the Principal Contractor prior to the construction phase commencing. The Principal Designer will assist the Principal Contractor in drawing up the construction phase plan.

The client will ensure that the construction phase plan adequately addresses the principle contractor reviews and revises the plan regularly to ensure that it takes into account any changes that may occur and that it remains fit for purpose.

Any amendments to the construction phase plan are communicated to all Site Operatives and the principal designer by the Principal Contractor.

The Revision Register ahead of this document should be updated to reflect the changes.

3.5 Project Arrangements

A copy of the Health & Safety Policy will be available on site at all times provided by the Principle Contractor.

3.6 Liaison with the Workforce

The Construction Phase Plan should be briefed to all contractors so that they are fully aware of the Health and Safety requirements for the site.

The Site rules are as follows;

- Pre-start meetings will be held by the Site Supervisor with each Contracting
- Contractor to ensure they are fully aware of the requirements for this project.
- Daily liaison with the site operatives will be made by the Site Supervisor and will include health and safety issues.
- Formal inspections will be carried out weekly by the Site Supervisor.

- Safety improvement notices will hopefully only be issued if guidance is ignored and will be used to ensure matters are dealt with immediately.
- Toolbox talks will be presented fortnightly.

3.7 Continuing Design Work

Design input during the construction phase must comply with the requirements placed on Designers under CDM 2015. Where design alterations, amendments and additions are undertaken, the persons carrying out such tasks must ensure consideration is given to eliminating risks where possible and providing control measures where not.

The hierarchy of risk control is detailed within current CDM documentation and Regulation 4 of the Management of Health and Safety at Work Regulation 1999, which is applicable to all aspects of this project. This is broadly summarised as such:

As the first step, avoid a risk altogether e.g. design the works to be undertaken using a different approach without introducing greater risks.

If risks remain, assess the risk and combat it at source rather than providing protection e.g. Utilise different lifting procedures, relocation of plant requiring maintenance etc.

If the above approach cannot be taken, adapt the workplace to the requirements of the workers e.g. provide collective protection to all affected by the project.

If collective protection cannot be provided, consider personal protective equipment, however points 1 to 3 above must be implemented where possible first. - PPE is a last resort.

It is essential that this approach to risk control is taken by all persons having an input on design, including Surveyors, Material Controllers and Project Managers.

3.8 Selection of Contractors

Prior to being selected for any project sub-contractors will be required to demonstrate their commitment to Health and Safety and compliance with Regulation 15 of the CDM Regulations 2015.

Sub-contractors will be required to produce the following documentation as part of the tender package;

- Company Health and Safety Policy
- Outline Method Statement
- Operatives Proof of Competency/Training Records
- Completed Contractors Competency Questionnaire

Prior site commencement, sub-contractors will be required to submit the following documents;

- Written risk assessments
- Detailed method statements

- COSHH assessments
- Test certificates for Plant and Machinery
- Additional Operatives Proof of Competency/Training records

3.9 Flow of Information to Contractors

The Site Manager will review Method Statements and Risk Assessments prior to Contractors commencing on site to foresee any possible conflicts with other trades.

Weekly meetings with Contractors will provide an opportunity to provide Health and Safety feedback. Health and Safety should be on the meeting agendas and minutes recorded accordingly.

3.10 Site Security

Persons attending site will need express consent of the Principal Contractor. All persons will have CSCS cards or similar and will be required to attend the site safety induction prior to commencement on site. Persons will be required to sign in and out with the site office daily.

The following rules are applicable to any persons attending site;

- All persons require photographic identification, including details of their name and employer
- No entering the areas outside of the segregated site, unless instructed by the Site Supervisor
- No allowing of person onto the site who fail to comply with the above or having not received a site safety induction
- All operatives to sign in and out in compliance with the procedures

Suitable mandatory signage will be posted by the site entrance on the requirement of signing in and out of site.

Emergency contact numbers will be displayed at the main entrance to the site for out of hour's emergencies.

All hoarding to the site will be a minimum of a 2.4m high sustainable system. Before erecting temporary structures such as scaffolding and hoardings, an application should be applied for with Islington Council Street Management Division. Hoarding will also be required on the canal frontage for security. Consideration will be required regarding any existing mooring that may be present. Relevant signage for Health and Safety and site work details must be displayed on the canal frontage as it would be for roadside hoarding.

3.11 Site Inductions and On Site Training

Site inductions are to be given to all site operatives and recorded in the induction register.

Inductions will discuss;

- Site rules
- Emergency arrangements
- Monitoring arrangements
- Production of safety documentation

Toolbox talks will be held fortnightly to supplement the induction.

3.12 Welfare Facilities

Welfare facilities will be provided for the site area and located on the site set up plan.

The facilities will consist of the following;

- Toilet
- Hot/Cold hand washing facilities
- Means of heat and area to consume food
- Drinking water
- Drying area for clothes

Facilities will be inspected daily for build-up of waste and fire risks and thoroughly cleaned twice a week.

3.13 First Aid Arrangements

A trained First Aider will be present on site for the full programme duration. A stocked first aid kit will also be provided and checked weekly by the Site Supervisor. The location of this is to be shown on the setup plan to enable all workers to know where first aid facilities are located.

The nearest Accident and Emergency Unit is at;

University College Hospital

235 Euston Road

London

NW1 2BU

A direction plan will be displayed adjacent to the first aid facilities within the welfare unit.

3.14 Reporting and Investigating Accidents

All accidents or incidents will be reported internally to the Principal Contractor and recorded within the Site Accident Book accordingly. Any accident or incident shall be reported immediately to the Client's representative.

The procedure for dealing with accidents and incidents will be fully detailed within the Principal Contractors Health and Safety Policy.

3.15 Fire and Emergency Procedures

To reduce the risk of an emergency occurring the Principal Contractor will put fire and safety management procedures in place.

On this project a permit to work system will be put in place. Permits are issued on a daily basis for operatives hot working. Hot works will remain minimal during the project.

Where hot works cannot be avoided, suitable firefighting equipment should be made available. There will be no hot works activities conducted during the last two hours of the working day. Hot works must be inspected by a competent person to ensure the fire risk is omitted.

Appropriate firefighting equipment will be provided in the site compound.

The fire assembly point in the event of evacuation will be on the opposite side of the road. This will be detailed and shown in the site induction.

All areas of the site are to remain no smoking.

3.16 High risk or other No-Go areas

The Principal Contractor will brief operatives on high risk or any no-go areas of the site. These areas can only be accessed upon receiving permission from the Site Supervisor and a suitable Risk Assessment put in place.

3.17 Smoking Restrictions

Smoking will be banned from the site and personnel wishing to smoke during their breaks may do so outside the hoardings. At within a designated area due to local residents in close proximity. Full details of the designated smoking area will be confirmed by the Principal Contractor.

3.18 Community Liaison

A liaison officer will be appointed to work with the local residents, business community and local council. They must be available at all times whilst the site is in use, their details will be displayed on the hoardings with their name, contact number and address for complaints.

3.19 Traffic Management

Once a Principal Contractor has been appointed a site-setup plan will be produced showing the following details:

- How the site will be set up for each major phase – demolition, construction and fit-out.
- Location of material storage areas
- Welfare facilities
- Wheel washing area
- Site office
- Location of first aid equipment
- Hoarding wires
- Tower Crane Base (if required)
- Access and egress routes.
- Construction vehicle routing plan to the nearest A-road.

The site set-up plan will be based upon detailed information including swept path analysis of construction vehicles both on and off site.

Contractors will be encouraged to access the site by means of public transport or cycle and accommodation will be made for on-site cycle storage for employees.

Traffic management will be carried out in accordance with the guidance from Islington Council, which states that all vehicle movements to and from the site should be planned and agreed with the local council and enforced with Contractors and vehicles must not park outside the site at any time of the day or night unless specifically agreed with the local council.

Consultation will be undertaken with Islington Council Highways and Streetworks Team to agree full details of the proposed traffic management. This ill take into consideration any other construction activity in the vicinity of the site, and the Site Manager will liaise with their respective counterpart on other sites to ensure that traffic management is co-ordinated.

All deliveries will be arranged prior to delivery with the Site Supervisor to ensure that vehicle numbers are controlled and that there is no queuing of vehicles on the highway. The timing of deliveries will be managed to reduce the potential for disturbance to local residents. All drivers will be instructed to telephone the Site Supervisor 20 minutes ahead of arrival to confirm that the loading area is clear and a Banksman will be ready for the delivery. If a delivery arrives outside the set delivery period, they shall not be permitted to proceed to the site and will be allocated a new delivery slot. No vehicles shall wait on the roads within the borough in the event that the loading area is not clear.

During the site working hours, a Gateman and Banksman will manage the site entrance, for both pedestrian and vehicle access. All vehicle gates will remain shut when not in use. A proposed temporary loading bay demarcated by water filled barriers will be set up on-site and all deliveries and movements in and out and around the temporary loading bay will be accompanied by the Banksman who will manage the interaction between the vehicle and other road users.

The potential risk to both cyclists and pedestrians will be carefully considered and vehicles with appropriate safety equipment including safety bars, additional mirrors and advisory signage will be used. It will be required that drivers must have undertaken a cyclist safety awareness course. FORS accredited hauliers will be used to transport material to and from the development. Any drivers who are not accredited by the FORS scheme will be required to pass a Safe Urban Driving Test, or similarly approved scheme.

Regents Canal

It is not intended to use Regent's canal as a method of delivery and removal of plant and materials due to the lack of navigable width and depth. Regarding any temporary works that may encroach the canal during construction a warning of these works will be made visible to the canal users. Consultation will be undertaken with the Canal and River Trust to agree appropriate measures are undertaken to protect existing and future river traffic throughout the duration of the construction works. Consultation will also be undertaken with the Environment Agency to ensure they are content with the proposed management.

4.0 ARRANGEMENTS FOR CONTROLLING EXISTING RISKS

4.1 Boundaries and access, including temporary access

For traffic movements and deliveries see 3.19 Traffic Management for further details.

One of the buildings to be demolished is on All Saints Street and hence boundaries will be needed to isolate the building. The court yard parking is adjacent to Ice Wharf South and thus this should be considered when erecting boundaries on the site. A boundary will have to be constructed to separate the site from surrounding buildings. The site is not accessible from the north side due to the canal so a platform in the canal may have to be erected for access for demolition, building and outer renovation works to the retained old mill buildings. (Consideration of the existing permit on All Saints Street should be made). As stated in 3.19 consultation with the Canal & Rivers Trust should be sought regarding any temporary works that may encroach the canal.

Personnel access will be via the pedestrian door in the hoarding. There is a 2m access strip to Western Boundary for maintenance for adjacent residential units.

4.2 Adjacent Land Uses

The surrounding buildings are a mix of uses with both commercial use and some residential areas immediately adjacent at Ice Wharf. On the north side of the site is a canal running right up to the edge of three of the buildings.

Mitigation measures, as specified within this report, will be put in place to ensure that any disturbances to neighbouring properties is minimised.

4.3 Existing Underground Obstructions

No accurate information is available and therefore suitable arrangements are to be in place before any excavations. Therefore, a CCTV drainage survey will be conducted. A cat scan or a GPR survey to locate the position of services such as gas, electric or telecoms utility maps may be useful but do not show exact locations of services.

4.4 Location of Existing Services

No site-specific information is available as yet, but we expect more information in the PCIP

All incoming services will be isolated and disconnected prior to any work commencing. A ground survey will be carried out before any excavations take place.

4.5 Existing Conditions which may affect the safe use of plant

The use of plant will be carried out in compliance with the restrictions placed on the works for noise, dust and site working hours. All migratory risks will be closely monitored accordingly. The use and storage of any fuel/oils to be closely monitored to prevent any leakage into the canal. (See environmental plan for further information). Any work over or around Regents Canal will require the relevant risk assessments and Method statements, it is also recommended that these tasks are monitored.

Initial consultation with canal and rivers trust works engineers should be sought.

4.6 Information about the existing structure

Information about the existing structure is available in the drawings by Technics Geospatial Consultant Surveyors, Project number SP16055.

4.7 Access to Height

All requisite access scaffolds, aluminium towers and rope access will be erected by competent personnel in accordance with current legislation/regulations with all necessary edge protection provided. Requisite inspections will be completed by competent personnel and registers kept on site.

4.8 Deliveries and Removal of Plant and Materials

Due to the limitations of the site, only the materials that are required at the time would be brought to site.

Due to the limited storage area we would not envisage storing materials on site unless they are currently being used.

During the excavation phase and wet weather, the site supervisor will ensure that all vehicles leaving site will have their wheels cleaned by scraping and jet wash to remove any mud prior to entering the highway. During the hot months' dust may be generated by traffic movement this will be controlled by damping down. Note that the wheel wash will be situated at least 10m away from Regents Canal and that any waste water from this activity does not discharge into the canal.

All lorries will be inspected before leaving the site. This would be monitored and, if further measures were required, these would be implemented.

It should be noted that the delivery and removal of plant and materials by canal would be both inefficient and unsustainable. - Ultimately the waste would be transported by barge to a lorry and deliveries would be delivered to the barge by lorry. This along with the lack of navigable width and depth of the canal would make the use of Regent's Canal impracticable and inefficient. It would also have health and safety implications with the requirement for lifesaving equipment. There would also be the potential for possible environmental and ecological impact with waste and deliveries working their way into the canal. It has therefore been concluded that Regent's Canal will not be used for deliveries or the removal of material.

4.9 Control of Lifting Operations

Planning and lifting operations shall be carried out in accordance with HSE's Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). Approved Code of Practice and guidance.

For the use of cranes or mobile access platforms a permit will be required from Islington Councils Street Management Division, they will require ten days' notice before they can issue approval.

4.10 Maintenance of Plant and Equipment

A Plant/Equipment Register will be maintained for all equipment on site. The Site Supervisor will provide records of maintenance and suitability of all machinery and portable tools and they will be kept on site and made available for inspection. All machinery and portable tools will be used as specified by the manufacturer and will be properly maintained and used only in the manner for which they were designed.

4.11 Storage of Materials

Storage of materials and power tools will be within the construction area and the building.

Storage and use of fuels/oils to be closely monitored to prevent any leakage into the canal.

Under no circumstances will equipment, materials or tools be stored to obstruct access routes.

4.12 Manual Handling

Operatives will follow safe manual handling techniques with BS 4343 type gloves being worn at all times.

4.13 Use of Hazardous Substances

All substances will be assessed and substituted for non-hazardous substances where possible. Suitable protection will be provided where any hazardous substances are required, however, no substances will be used which may present migrating risks.

Note that any excess or waste substances must not be disposed of in Regents Canal and must be disposed of in the correct way.

4.14 Control of Dust, Noise and/or Vibration

The borough of Islington is declared as an 'air quality management area' and as such the Principal Contractor will introduce measures whenever possible to reduce air pollution.

Control measures for reducing air pollution will include;

- Damping down sprays

- Wheel washers
- Good housekeeping
- Use screens and hoardings
- Cover skips and loaded lorries
- Rubble chutes
- Handle materials carefully to avoid generating dust
- Use low polluting machinery and plant with particle filters
- Site inspections for pollution risks
- Regular monitoring

The Principal Contractor shall monitor noise in accordance with BS 5228:1:1999 which gives guidance on calculating noise levels from constructions works and likely effects this will have on neighbouring premises.

Islington Borough Council do not have a noise standard but do offer the following guidance;

- Carry out a background noise survey before work begins
- Average noise levels should be measured across one and ten hours, 0800 – 1800
- If predicted values are higher than the measured background noise by 5dB or less, the construction noise will not be deemed significant
- If predicted values are between 5dB and 10dB higher than the measured values, the noise will be deemed acceptable but the Principal Contractor should still try to reduce it
- If the predicted values are higher than 10dB above background, the effect will be deemed significant. The Principal Contractor must review the equipment and methods you are using
- The existing building should wherever possible be demolished in phased manner as to reduce noise levels which may affect neighbouring properties. This will also allow chance for the recovery of existing materials for re-use or recycling.
- The Principal Contractor must ensure that people working on-site are not exposed to noise levels higher than those stated in the Noise at Work Regulations 2005.

The following control measures for reducing noise pollution will be followed;

- Noisy work is not to take place after site hours (0800-1800, Mon-Fri. 0800-1300, Sat.)
- Machinery and vehicles fitted with silencers wherever available

- Shutdown equipment when not in use
- Machinery based as far away as possible from noise sensitive areas
- Barriers and enclosures (See BS 5228:1:1999)
- Piling methods should be used which reduce noise and vibration
- Fixed items of equipment should be electrically powered whenever possible
- Allow enough time for concrete pours, contact Islington Councils Noise Team if this is to overrun
- Concrete crushing equipment should be used as opposed to drilling
- Advise all operatives on how to reduce noise to help protects themselves and the community
- Monitoring in accordance with BS 5228:1:1999

4.15 Waste Management

All waste from the site will be segregated and disposed of at registered waste management sites.

For details on the Waste Management System please see section 9.0

4.16 Demolition Work

The client will only appoint contractors who have the relevant skills, knowledge and experience to undertake the demolition works.

The Client with the help of the Principal Designer shall provide those who need it with pre-construction information. This may be in the form or survey and reports which will be needed to undertake the demolition works. This should be done before work begins on site and not left to the Principal Contractor.

The Principal Designer must plan, manage, monitor and co-ordinate health and safety issued in the pre-construction phase.

The Principal Contractor must plan, manage, monitor and co-ordinate health and safety issued during the demolition work.

Site Managers must ensure workers are supervised and are following safe working practice.

Sub-contractors must follow the instructions and plans as given to them by the Principal Contractor.

Any spillages or debris entering or likely to enter the canal during demolition, must be reported to the site foreman immediately and dealt with in a manner that will avoid contamination .

4.17 Demolition Waste

Procedures for construction and demolition waste refer to the site waste management plan further on in this document.

Also see 4.8 for deliveries and removal of plant and materials.
Also Note 4.16 regarding spillages or debris entering the canal during the demolition phase.

5.0 HEALTH HAZARDS

5.1 Asbestos

Demolition and refurbishment survey is required to identify any ACM's present in the existing building structure prior to any demolition.

5.2 Existing Hazardous Materials

Great care will be required prior to commencing works to identify and safely remove any hazardous needles or other drug taking accessories.

5.3 Environmental Hazards

Many species of bats, birds and other fauna that inhabit the waterside are legally protected and surveys to establish their presence are required prior to the commencement of works. Initial Surveys have been conducted which conclude that there is no evidence of black nesting on site, and no bat roosts were identified as present within the proposed development area.

Waterside structures often contain features of archaeological or heritage value that needs to be preserved, rescued or recovered for future use, therefore the contractor should check with the local authority on any consents that may be required. A MOLA desktop study has already been conducted.

Demolition works adjacent to and over the canal are likely to require adequate screening to prevent debris from entering the canal itself and debris piles are to be kept at a minimum to restrict the release of dust into the atmosphere and must not create a run off towards the waterway. There may be a need for a pre-commencement survey on regents Canal and one upon completion therefore consultation with the Canal & River Trust and the Environment Agency regarding the demolition and possible environmental impact will be sought prior to commencement of works. A canal wall condition survey has already been conducted.

All operatives will be provided with a toolbox talk on the inherent risks of contact with rats' urine, recognition of the signs of Leptospirosis and risks of prolonged contact or disturbance of pigeon guano.

A list of completed surveys is available in 2.5 on page 11 of this report.

6.0 ENVIRONMENTAL MANAGEMENT

6.1 Environmental Aims

The aim of this Site Environmental Plan is to ensure that environmental management will be planned into the work undertaken on this specific contract to achieve:

- An environmental incident free contract.
- Co-operation throughout the workforce to ensure environmental protection is everybody's responsibility.
- A pro-active approach to environmental protection by the Contract Management Team.
- A safe working environment as a condition of employment.
- A pro-active approach by all personnel involved on the site towards the protection of the canal from any type of debris or contamination entering the system.

6.2 Environmental Plan review

Following guidance provided By the Environment Agency, this Environmental Management Plan will be subjected to audit and review. This will be carried out on a monthly basis or where site conditions alter. It should also be noted that liaison with local groups and FORC (Friends of Regents Canal) will be ongoing throughout this stage.

The Environmental Management Plan review will be conducted by the Site Manager (and Site Supervisor) with any amendments to the Environmental Management Plan communicated to all Site Operatives and the environmental consultant. As well as local groups and the Friends of Regents Canal. A revision schedule is located on the front of this document, which will be updated accordingly.

6.3 Special Licences

The company should be aware of the requirements of the special licences required from both the local authority and the water/ effluent company and shall apply for;

- A licence for the discharge of rainwater into the canal is currently in discussion with the Canal and Rivers Trust.

6.4 Environmental Recording and Reporting

In the event of an environmental incident the company will inform the client and the relevant enforcing agency by the quickest means and record the incident on the environmental incident form.

To ensure all relevant environmental data is collated the environmental co-ordinator will:

- Collect the required environmental data and return to CDMC for inclusion in the safety file.
- Collate all waste transfer notes
- Manage the collation of data for the site waste management plan.

6.5 Liaison and Consultation with the Workforce

All contractors will be briefed with this Environmental Management Plan to ensure they are fully aware of the environmental management requirements for the site. This will also allow them to ensure their arrangements for compliance with the Site Environmental Rules.

- Pre start meetings will be held by the Site Supervisor with each Contracting Company to ensure they are fully aware of the requirements for this project.
- Daily liaison with the site operatives will be made by the Site Supervisor and will include environmental management issues.
- Formal inspections will be carried out weekly by the Site Supervisor and monthly by City South Projects Ltd.
- Internal environmental improvement notices will hopefully only be issued if guidance is ignored and will be used to ensure matters are dealt with immediately.
- Toolbox talks will be presented fortnightly.

6.6 External Aspects Controls

Hoarding

To ensure that all environmental hazards are protected from tampering, theft or misappropriation the site will be protected by a suitable 2.4 m secure hoarding.

Site Entrance

Be to controlled as to:

- Prevent unauthorised access
- Prevent build-up of waiting vehicles.
- Be secured out of hours

Canal Frontage

Measures must be taken to prevent unauthorised access during out of hours and any temporary works must be made clearly visible to canal traffic – relevant signage and warnings to be displayed on canal hoarding and adjacent to any moorings that may be located either side of the site.

Road Cleaning

The company will ensure that any mud/waste deposited on the road immediately outside the site entrance is regularly swept and cleaned as to prevent entry into the local rainwater system, any mud or waste must not be discharged into the canal.

This will be carried out by hand or in the case of heavy mud by a road sweeper.

Signage

Suitable and sufficient warning signage will be displayed on the external surfaces of the hoarding to inform passers-by of the undertaking also warning signage relating to trespass and vehicle movement. Suitable warning signage must also be displayed on the canal frontage to inform canal users as well as passers-by on the tow path.

External lighting

Suitable external lighting will be erected to assist in the security of the site. Where practical low energy bulbs and PIR lights will be used to reduce energy

Consumption

Care in the positioning of external lighting units will be carried out to minimize light pollution of nearby residences.

6.7 Existing Environment (Natural)

Water courses

A canal runs along one side of the site up to the edge of three of the existing buildings. One of the buildings to be demolished runs up to the water's edge. Therefore, extreme caution should be used in the removal of waste from the site, ensuring that discharge of waste, by any means, into the canal is kept to an absolute minimum.

Consideration to where surface water gullies discharge to should be made, should these discharge directly into the canal then an alternative solution to wheel washing and site run-off will be required.

Water run off

As set out in 5.3 Environmental Hazards, water run-off from the site must be restricted.

Water table

During the topographical survey conducted by Technics Geospatial Consultant Surveyors in Feb 2016, the water level of the canal was recorded at 20.96m AOD.

Trees, flora & fauna

As set out in 5.3 Environmental Hazards, consideration towards wildlife and all other fauna must be considered.

Existing and Ground Contamination

No details have been made available.

6.8 Existing Environmental (Man-Made)

Existing Services

A survey will be carried out to identify, clearly mark and protect any existing services in particular any drain covers which will be covered with sealed drain covers to prevent any pollution of the below ground drainage.

Good Neighbour & Community Relations Strategy

Prior to the contract commencing the company will hold meetings with the local traders to ensure that the project is not affecting their businesses.

The company have also planned to liaise with the local community associations to minimise any impact upon them from the project.

On site fuel bunds

The on-site fuel container is to be located in a safe position away from moving traffic and away from canal and behind a steel barrier to prevent its damage.

The fuel container will be located in its integral bund. An emergency spillage kit will be made available at the site office. It is recommended that an incident plan with training, and a responsible person or persons to be on site during working hours should there be a spillage so to avoid any pollution entering the canal.

6.9 Internal Aspects

Effluent discharges

Site run-off and wastewater produced from site activities should be disposed of in-line with the requirements set-out by the Environment Agency and Thames Water Utilities Ltd.

Sufficient protection must be in place to ensure any dangerous materials used on site do not come into contact with the canal, watercourses, groundwater or wastewater.

A suitable drainage system should be put in place by the Principal Contractor. The system should aim to minimise the quantity and improve the water quality before it leaves the site.

The Principal Contractor should investigate ways to re-use water whenever possible.

The controls to minimise site dust from moving traffic may be:

- Damping down
- Site speed limits
- Covering stockpiles of earth with Geotextiles

- Good housekeeping practices

Noise Control

At all times, all employees will be required to take a pro-active approach to pollution by way of noise to minimise risk to themselves and others affected by the works. This hazard should be clearly identified within the risk assessments and controls to be implemented within the method statements. Liaison will be made with the Site Manager before commencement of the works to establish the safe method of work.

Vibration

At all times, all employees will be required to take a pro-active approach to pollution by way of vibration, to minimise risk to themselves and others affected by the works. This hazard should be clearly identifying within the risk assessments and controls to be implemented within the method statements. Liaison will be made with the Site Manager before commencement of the works to establish the safe method of work.

Site Waste Management

Where the Company acts as the principal contractor, which may have an effect on the environment, careful planning will be implemented to reduce the amount of waste produced by the site. The Company recognises that waste management is an integral part of the overall site management plan and that measures to avoid excessive waste can in most instances cost very little, if included at the planning stage. All waste materials and substances produced by the project will be subject to the site waste management plan

6.10 Plant and Machinery Noise Levels

Table 1 – Plant and Machinery Noise Levels

Type of	Noise level at 1 m	Noise at 10 m
Light breaker	109	70
Heavy breaker	120	75
Abrasive wheel	109	85
Reciprocal saw	75	60
360° excavators	98	80-85
Hydraulic augur	72	65
Concrete batching	No data as yet	
Tipper vehicles High revs when tipping the body	92- 95	85
Piling Rigs	110	85

Typical expected noise levels

Possible Noise Reduction methods for compressors or generators

- Use electric compressors as appose to diesel or petrol
- Sound reduced compressor or generator can supply several pieces of plant.
- Use of centralised generator.
- Efficient sound reduction equipment fitted to engines

- Metal castings should be acoustically dampened.
- Enclosure of compressor or generator in a ventilated acoustic enclosure.

Operating methods of noise reductions

- Breaking equipment to be used at an absolute minimum and only silenced or sound models to be used.
- No plant or equipment to be left running when not being used. Where impracticable plant to be set to idle in the quietest manner.

Noise reduction of mobile plant

- All plant should be fitted with an efficient sound reduction equipment
- Movement of all plant around the site to be kept to normal operating hours and audible reversing alarms should be of a type, which whilst ensuring that they give proper warning, will have a minimum noise impact external to the site.

7.0 ONGOING DESIGN CONTROL AND COMMUNICATION

7.1 Significant design assumptions and suggested work methods

This information is to be derived and disseminated by the Client/Principal designer/Principal Contractor as issued by the Design Team. A client representative will remain in attendance at any Meetings as hosted and as such will be familiar with design assumptions made. These assumptions will be formally recorded and reviewed by the Principal Designer accordingly.

7.2 Arrangements for co-ordination of ongoing design work

All ongoing designs and design changes will be issued to the Principal Designer in order to disseminate to the relevant parties involved with the project.

7.3 Information on significant risks identified during design

We expect that the CDMC to identify works operations which carry significant risk in the PCIP. Sub-Contractors will complete their own risk assessments and Method Statements (with requisite 'controls' to reduce risk). All relevant personnel will be instructed accordingly before works commence.

7.4 Materials requiring particular precautions

Standard building materials will be used by the Principal Contractor and sub-contractors. All operatives to be employed will be given this contract will be fully familiar with the materials to be used and will have been provided with suitable training on the hazards from such materials previously.

8.0 HEALTH AND SAFETY FILE REQUIREMENTS

8.1 Description of its contents

The outline requirements for the Health and Safety File will be in accordance with guidance provided within the Approved Codes of Practice for the Construction (Design and Management) Regulations 2015 – Appendix 4. This will include the following:

(a) a brief description of the work carried out;

(b) any residual hazards which remain and how they have been dealt with; (c) hazardous materials used;

(d) record drawings;

(e) health and safety information about equipment provided for maintaining the works;

(f) details on warranties/guarantees provided;

(g) schedule of contractors and suppliers used during the project

The scheduling of the specific information for this project will be undertaken during the initial phase of the construction work to ensure suitable and sufficient levels of information is obtained by the principal contractor and duly provided to the principal designer and client.

8.2 Proscribed Format of information Submitted

In order to allow the Project Client to meet with duties placed upon him under Regulation 4 and Appendix 4 of the Construction (Design and Management) Regulations 2015, the Health and Safety File will be collated, issued and stored in a useable format

8.3 Timescales

All information required for inclusion within the Project Health and Safety File, must be provided within two weeks prior to completion of the works. Any information unavailable at this time must be scheduled, along with envisaged submission dates, and provided to the principal designer at least two weeks prior to completion of the works.

9.0 SITE WASTE MANAGEMENT

9.1 Management Structure Responsibilities

To ensure that the site adhered to any rules and regulations regarding the sustainability and the ecology of the project and environment. To make sure all personnel are aware of the potential of possible ecological problem should debris/fuels/oils or liquids enter the canal.

The overall Management responsibility for this project will be with the Principal Contactor in order to manage the project on a day to day basis, the following roles will be appointed directly by the Company.

Site Manager

Day to day health and safety responsibilities in addition to the management of the project and all sub-contractors for its duration.

Emergency Coordinator

To ensure the emergency arrangements in place are up to date and reflective of the site arrangements. To ensure all persons are briefed in the emergency arrangements and to inspect any equipment provided on a daily basis. In the event of an emergency, account for all persons employed and relay relevant information to the emergency services.

Site First Aider

To provide first aid coverage whilst any person is employed at the site. To inspect the first aid provisions weekly and to ensure compliance with duties under RIDDOR.

Accident Investigations

To assist with compliance with duties under RIDDOR and provide guidance as required.

Site Safety Inspections

To complete inspections on a fortnightly basis (or more often as site operations dictate) and review of health and safety documentation and provide guidance as required.

9.2 Objectives

The project objectives are:

- To take all reasonable steps to ensure that waste management controls are observed including Duty of Care.
- To minimise the amount of waste generated and maximise the amount of waste reused and recycled.

- To reuse as much waste as possible on-site. Where reuse on-site is not possible to identify the most appropriate waste management option in line with the waste hierarchy.
- To manage waste as close as possible to the site location.
- To provide training to improve awareness of waste management issues with all staff and sub-contractors and to ensure correct waste management practices are followed on-site.
- To recognise and encourage construction sites managed in an environmentally sound manner in terms of resource use, energy
- consumption, waste management and Pollution.

9.3 Responsibilities

The responsibilities in relation to the SWMP are set out below:

The Site Manager

The 'site champion is the SITE MANAGER and will be responsible for implementation of the SWMP. Duties include but are not limited to:

- Ensuring waste is managed on site according to the SWMP. This includes ensuring appropriate segregation of waste on-site, making arrangements for the removal of waste from the site.
- Ensuring all staff and sub-contractors understand their duties in relation to the SWMP. This includes organising appropriate training.
- Ensuring correct records and documentation is kept. This includes checking waste transfer documentation, maintenance of documentation relating to waste transfer.
- Ensuring compliance with Duty of Care and other relevant legislation.
- The 'site champion' is the point of contact for all staff, sub-contractors and waste contracts in relation to the SWMP and waste management issues.
- All staff working on site are responsible for adhering to the SWMP. This includes attending training as specified and following arrangements for the movement and segregation of waste on site.
- Details of all the sub-contractors and waste contractors involved in the project including responsibilities, are set out below.

Sub-contractor/s

All sub-contractors are listed in the table below with contact details. All sub-contractors are responsible for adhering to the SWMP including:

- All sub-contractors must attend training as directed by the 'site champion'.
- Sub-contractors must follow arrangements for the collection and segregation of waste on site as specified in the SWMP or through training.
- All sub-contractors are responsible for contacting the 'site champion' if they are unclear about any aspect of waste management on site.

Waste Contractors

The waste contractors are listed in the table below with contact details. All waste contractors are responsible for adhering to the SWMP including:

- Waste contractors should attend training as directed by the 'site champion'.
- All waste contractors are responsible for ensuring compliance with Duty of Care including providing the appropriate records to the 'site champion'
- All waste contractors are responsible for ensuring waste is managed off-site as specified in the SWMP.
- They are responsible for ensuring the waste treatment facilities have a waste licence and that records are provided to the 'site champion'
- Waste contractors are responsible for removing waste off site and transporting to a licensed waste management facility.
- Waste contractors are responsible for providing adequate containers for collection and segregation of waste as specified in the SMWP.

Table 2 – Waste Contractors Contact Details

Contract Name	Address	Telephone	Responsibility	Licence Number and Expiry

9.4 Register of Legislation

The project will comply with all necessary legislation. The register below highlights the waste legislation that relates to the SWMP. Details of the documents that will be kept to prove compliance are listed. The document register in Section 5 gives information on where these records can be located.

Table 3 - Register of Legislation

Construction Activities	Waste Legislation and Other Relevant Legislation	Documents/Records Kept
Ordering / Procuring Materials	CLP Regulation	Material Safety Data Sheet (MSDS)
Waste Management	Waste Management Licensing Regulations 1994	Waste Management
	Pollution Prevention and Control (PPC)	PPC Permit
	Waste Carriers	Waste Transfer Notes
	Duty of Care	Consignment Notes (for special waste)
Preparing for Construction	The Management of Health & Safety at Work Regulations 1999 Construction (Design and	Method Statements and Health & Safety Risks Assessments
Waste Materials/Procuring Materials	Control of Substances Hazardous to Health (COSHH) 2005 (as amended)	COSHH Assessments Records

9.5 Document Register

The following documents relate to the implementation of the SWMP:

Table 4 - Document Register

Document Name	Location of Document	Length of Time Records will be Kept	Contact
SWMP	On site	12 months from Practical Completion	Site manager
Training records	On-site	3 Years	Site manager
Meeting minutes	On-site	3 Years	Site manager
Register of legislation and regulatory	On site		Site manager
Waste Transfer Notes	Accountants	2 Years	Clients accountants
Consignment Notes	Accountants	3 Years	Clients accountants
Discharge consent	On site	3 years	Site manager
Trade effluent consent	Not applicable		
Waste Management Licence	Not applicable		
Method Statements and Health and Safety Statements	On-site	3 Years	Site manager

9.6 Waste Arising and Management Options

A very approx. estimate of the waste arising during the project are given in the table on page 45. This table also details the waste management option proposed for each waste type.

- A new table will be inserted every time that the information is updated. At the minimum this will allow at the end of the project.
- The following actions will be taken to reduce the amount of waste arising:
- Returning unwanted materials to supplier.
- Just-in-time deliveries to avoid damage on-site.
- Retaining unused material as spares.
- Repair rather than replacement of items.
- Salvage bricks/blocks.
- Waste to Be Sorted and Recycled by waste management company.
- To measure all waste that is generated.

9.7 Management of Waste Site

Where a company acts as the Principal Contractor, which may have an effect on the environment, careful planning will be implemented to reduce the amount of waste produced by the site. The Company recognises that waste management is an integral part of the overall site management plan and that measures to avoid excessive waste can in most instances cost very little if included at the planning stage.

Principal Contractor will:

- Review the plan.
- Record quantities and types of waste produced.
- Record the types and quantities of waste that have been
- Reused (on or off site)
- Recycled (on or off site)
- Sent to other forms of recovery (on or off site)
- Sent to landfill.
- Otherwise disposed of.
- Update the plan to reflect the progress of the project.

Within three months of the work being completed, the principal contractor will add to the plan:

- Confirmation that the plan has been monitored and updated in accordance with the regulation
- A comparison of estimated quantities of each type of waste generated against the actual quantities of each waste type
- An explanation of any deviation from the plan

An estimate of the cost savings that have been achieved by completing and implementing the planning addition to the requirements laid out in the Schedule to the regulations.

- Ensuring cooperation between contractors during the construction phase.
- Induction, information and training for every worker, with respect to the site waste management plan.
- Ensuring that waste produced is reused, recycled or recovered where practical.

9.8 On the Removal of Waste from the Site

Record the European Waste Classification code, the waste contractors name and their waste carriers licence details and for hazardous or special waste, record the carrier and the consignment note number.

9.9 Re-use and Recycling Off-site

The Materials that will be removed from site for recycling will be segregated from the waste stream and collected in containers for transport. The locations of collection and segregation area/s and the materials that will be collected will be clearly marked on the site logistics plan identifying their position on the ever changing site:

- All waste which can be reused or recycled will be segregated out of the waste stream by staff and sub-contractors.
- Contamination of the waste containers will be monitored on a daily basis by the waste management to provide.
- At the end of each day all staff and sub-contractors will ensure that waste is moved to the appropriate area as specified above.
- All lockable containers will be locked at the end of each day.
- Any problems found with arrangements for waste segregation should be reported directly to the site waste management champion.

The waste containers will be colour coded according to the National Colour Coding Scheme.

Table 5 - Colour Coded Waste Containers

Materials	Container (if applicable)
Bio	Yellow
Gypsum	White
Hazard	Orange
Inert	Grey
Metal	Blue
Mixed	Black
Glass	Brown
Wood	Green

9.10 Training

The company are aware that they are responsible for ensuring all staff and sub-contractors receive training on the implementation of the SWMP, therefore suitable and sufficient waste management and awareness training will be delivered that will include:

- Why SWMP is required.
- Waste management issues.
- Roles and responsibilities.

- Waste minimisation arrangements.
- Waste segregation arrangements.
- Waste Collection arrangements.

Details of training arrangements are given below:

Table 6 - Details of Training Arrangements

Training	Time	Subject Matter	Attended by
Induction	At project commencement	Introduction to SWMP, reminder of waste collection arrangements, maintaining awareness SWMP>	All site staff, sub-contractors waste contractors
Specific training	Prior to commencing duties	SWMP waste collection waste streaming waste storage waste disposal document control	Waste management supervisor Waste management operatives
Refresher training	Monthly	Overview of site waste management procedures	All site operatives
	Staff will be reminded of the training they are required to attend.		

Monitoring Aspect	Frequency	Information Used to Monitor
Amount of waste generated versus predicted	Weekly and At completion of project	Waste disposal contractors removal receipt and measured against waste transfer notes
Amount of waste reused versus predicted	Weekly and At completion of project	The site waste management plan measured against waste transfer notes

Amount of waste recycled versus predicted	Weekly and At completion of project	The site waste management plan measured against waste transfer notes
Compliance with Duty of Care	Monthly and At completion of project	The monitoring of legislation the site waste management plan and the waste transfer notes
Waste Carriers and Brokers	3 monthly and At completion of project	By monitoring the waste transfer notes

9.11 Site waste Management Plan Recording sheets

Below is a sample recording sheet which can be used and developed for the project.

Table 7 - Sample Site Waste Management Plan Recording sheets

	2016		2017							
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Waste Removal Costs.	£									
Total waste recycled (tonnes)										
Total waste re-used (tonnes)										
Total waste sent to Landfill (tonnes)										
Cost of waste to Landfill										

9.12 Key Performance Indicators (to be completed at the end of project)

Table 8 - Key Performance Indicators Sheet

	2016	2017			
Waste (tonne)/£100,000 of construction cost.					
Waste (tonne)/m2 of floor area					
Cost of waste as a percentage (%) of construction cost					

9.13 Estimated Waste Material

The demolition process will generate waste materials as described in the table below. The table describes briefly the type and quantity of waste material which may need to be managed by the Principal Contractor to ensure it is being dealt with responsibly and legally.

This table can be developed by the design team and Principal Contractor following detailed surveys during the detailed design stage.

Table 9 - Estimated Waste Material from Demolition Activities Table

Estimated Waste Material from Demolition Activities		
Type	**Location**	**Quantity (tonnes)**
Basement Excavations	Within site	6795
Brick	Front, rear & side elevations on All Saints Street and existing building by Regents canal	1779
Concrete	Ground Floor Slab	346
Concrete	First Floor Slab	346
Concrete	Second Floor Slab	346
Concrete	Third Floor Slab	346
Concrete	Fourth Floor Slab	169
Concrete	Roof Slab	169
Concrete	Stairwells (6 of)	126
Timber	All Saints Street	14.46
Tiles	All Saints Street	17.54
Steel	RC, stairwell & Columns	248

Waste Hierarchy

In order to try and reduce the quantity of waste produced during demolitions and construction work the Principal Contractor should aim to meet the following waste hierarchy system.

1. Eliminate (avoid producing the waste)
2. Reduce (Minimise the amount of waste you produce)
3. Re-use (Use items as many times as possible)
4. Recycle (Recycle what you can only after you have re-used it)
5. Dispose (Dispose of what's left in a responsible way)