

# Pre-Construction Information

**Centre for Ecology and Hydrology  
Edinburgh**

**Bush Estate  
Penicuik  
Midlothian  
EH26 0QB**

**Replacement Boiler Plant to External Plantroom**

Revision 2 -17 May 2017

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EXTERNAL PLANTROOM REPLACEMENT BOILER PLANT

### **1.0 NATURE OF PROJECT**

#### **1.1 Project Personnel**

##### **Client**

Nigel Parfitt  
Centre for Ecology & Hydrology  
Maclean Building  
Benson Lane  
Crowmarsh Gifford  
Wallingford  
OXON

##### **Principal Designer**

Nigel Parfitt  
Centre for Ecology & Hydrology  
Maclean Building  
Benson Lane  
Crowmarsh Gifford  
Wallingford  
OXON

##### **Principal Contractor**

To be appointed

##### **M&E Designer**

Kingswood Building Services Engineers Limited  
Engineering House  
Anchor Court  
Commercial Road  
Darwen  
BB3 0DB

##### **Local Authority**

Midlothian Council  
Buccleuch Street  
Dalkeith  
Midlothian  
EH22 1DN

##### **Health & Safety Executive**

Belford House  
59 Belford Road  
Edinburgh  
EH4 3UE

#### **1.2 Project Notification**

The project is not notifiable.

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#### 1.3 **Location**

Centre for Ecology and Hydrology  
Bush Estate  
Penicuik  
Midlothian  
EH26 0QB

#### 1.4 **Description of the Works**

The works comprise of the removal and replacement of the boiler system and associated pipework in the external plant room.

The works shall generally consist of:

- Decommissioning and stripping out of all redundant services
- New mechanical services
- Test and commission
- O&M Manuals and as-installed drawings
- Demonstration of the services to the end user

A temporary boiler plant will also be installed to ensure continuity of heating for the client.

#### 1.5 **Timescale and Phasing**

This is a 4 week construction/engineering programme.

The start date shall be agreed with the client but all works shall be fully completed by 9<sup>th</sup> September 2017.

Working hours shall be agreed with the client.

#### 1.6 **Description and Use of Facility**

The Centre for Ecology and Hydrology is a research organisation focusing on land and fresh water eco systems and their interaction with the atmosphere.

## 2.0 **EXISTING ENVIRONMENT**

### 2.1 **Surrounding Land Use**

The Centre of Ecology and Hydrology is situated in a rural area of Penicuik with a number of commercial premises in the locality.

### 2.2 **Existing Services**

The following services have been identified:

- Electricity
- Gas
- Heating
- Water
- IT Communications/controls

The Principal Contractor must undertake suitable investigations to identify unknown services i.e. CAT scans.

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The Principal Contractor must ensure that all services are isolated / disconnected by conducting adequate investigations prior to works commencing on site under the clients Permit to Work system.

The Principal Contractor will need to liaise with the Client regarding permit to work authorisation. If the client does not issue permits to work, the Principal Contractor must instigate their own system.

Details of isolation / disconnection procedures are to be identified in the Construction Phase Plan.

### 2.3 Existing Traffic System

Access to the site is via a well maintained rear private access road.

The road is mainly surrounded by trees, shrubs and grass.

There are some staff vehicles parked in a car park parallel to the access road.

The Principal Contractor must conduct site specific traffic management assessments to ascertain any hazards associated with vehicles or pedestrians using this road.

Suitable precautions must be implemented to warn employees and visitors to site.

The Principal Contractor must ensure all contractor vehicle movement and deliveries to site are managed by a competent banksmen, reversing on / off site should be avoided, if practicable.

Contractor vehicles must only be left in areas as agreed by the client.

### 2.4 Existing Structures

The single storey external boiler room is situated in the site car park between the main office/laboratory building and glasshouses.

The works must be segregated with suitable fencing i.e. Heras fencing.

The Principal Contractor must ensure that a fire management plan is implemented and assembly point identified.

Where works at height are to be undertaken, suitable access arrangements are to be implemented and carried out in accordance with current regulations.

Access to scaffolding and/or ladders needs to be secure to prevent unauthorised access.

The temporary boiler plant shall be located externally in the vicinity of the adjacent building.

### 2.5 Ground Conditions

The Principal Contractor must ensure that all equipment being delivered or unloaded is done so in the areas indicated on the drawings.

The Principal Contractor must ensure the strength of the floors, where heavy loads are to be stored, are checked prior to loads being delivered.

The Principal Contractor must ensure adequate edge protection / barriers are erected around any areas where there is the potential to fall from height.

The Principal Contractor must conduct adequate investigations prior to erecting any access equipment i.e. MEWP's, scaffold etc. in order to avoid voids, manholes, uneven ground.

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Details of temporary works designs and procedures are to be provided within the Construction Phase Plan, and a Temporary Works Register must be held on site.

#### 2.6 **Noise / Vibration**

The Principal Contractor must control all noise levels at source and take into account that the Centre of Ecology and Hydrology will be fully operational at times and therefore it may be necessary to undertake noisy operations outside of the working day, if applicable.

Equipment which produces noise over 80dBA must be used in accordance with manufacturer's instructions and HSE guidance. The Centre of Ecology and Hydrology must also be advised of noisy operations in good time prior to work commencing.

Machines and equipment producing vibration should be used in accordance with manufacturer's instructions and HSE Guidance.

#### 3.0 **EXISTING DRAWINGS/HEALTH AND SAFETY FILE**

The Design Team drawings and information is included within the tender documents.

Should the Principal Contractor need any advice or information on existing services he should liaise with the client.

#### 4.0 **THE DESIGN**

##### 4.1 **Significant Hazards**

The Principal Contractor is required to produce detailed site specific method statements and site specific risk assessments for all significant work activities prior to each operation commencing on site, giving adequate time for each method statement and risk assessment to be communicated to the relevant persons.

Key elements of work, which present a high risk, will be required to provide specific risk assessments and method statements, the Principal Designer may request these for comment.

The Principal Contractor must be able to demonstrate how approval of all sub-contractors risk assessments and method statements have been achieved.

The Principal Contractor must ensure adequate information is provided for all temporary works together with details of the temporary works designer(s) and the temporary works co-ordinator.

With regard to Temporary Works Design, the Principal Contractor must provide the following: (as applicable)

- a) Who will be their Temporary Works Design Co-ordinator for the project (in-house or outsourced)
- b) A copy of their Temporary Works Design management procedure
- c) A schedule of specific temporary works design items for the project

#### **Note:**

Any ongoing issues ensuing from Temporary Works Design must be copied into the Principal Designer for comment.

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#### 4.2 Health and Safety Hazard and Risk Register

The Health and Safety Hazard and Risk Register is produced to identify known hazards within the current site and proposed development. The recommended control measures must be developed by the Design Team and Principal Contractor.

The Health and Safety Hazard and Risk Register is by no means conclusive and will be developed throughout the project. Please refer to Appendix 'A'.

#### 5.0 CONSTRUCTION MATERIALS

Materials present on site or used in this project which may constitute risk must be assessed prior to use as required by COSHH Regulations and appropriate safe procedures for handling and use set in place. Appropriate personal protective equipment is to be provided and used. COSHH data sheets, which suppliers are by law required to provide, including emergency procedure information are to be kept on site.

The following is a list of materials which are likely to be present or that will be used during the works. This list is not exhaustive and must be updated as required by the Principal Contractor as additional hazardous materials are brought to site.

- Cement based products
- Hardwood, softwood, MDF board, treated timber, concrete or brick dust
- Mineral fibre insulation
- Paint, stains and silicone sealants
- Fire stopping materials
- Existing fluorescent light fittings – possible pcb's, mercury, cadmium or compounds
- A Refurbishment and Demolition Asbestos Survey has been produced for the works area. (No ACM has been identified)
- Should any suspect material be uncovered and there is a need to remove, drill or modify it, works in that area should cease and an analysis be carried out. Removal shall be carried out by a specialist contractor in accordance with the Control of Asbestos Regulations 2012 and HSE Publication L28
- Should any unknown chemicals or substances be discovered on site the Principal Contractor must contact the Client who will identify and arrange for its removal
- The Principal Contractor must implement adequate control measures to control the risk of dust migration in particular silica dust
- The Principal Contractor must avoid the need to "chase out" and where this is not possible suitable control measures must be implemented i.e. use of appropriate equipment to minimise dust migration and the use of PPE, face fit training must be provided for RPE
- If applicable, existing fire detection heads must be protected in order to ensure they are not affected / damaged by the dust migration. Where the heads are protected during the working day these must be reinstated at the end of the day and where necessary alternative detection methods must be implemented
- From 1 July 2013, under the Construction Products Regulation 2011 it will become mandatory for manufacturers to apply CE marking to any of their products which are covered by a harmonised

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European standard. It is the Merchant, Supplier or Specifiers responsibility to ensure that all products it supplies or specifies on a project carry a genuine CE Mark

#### **6.0 SITE WIDE ELEMENTS**

##### **6.1 Site Access & Egress**

Entry to the site is via rear private access road.

The Principal Contractor must ensure that the Boiler Room is prohibited to unauthorised persons and suitable barriers / fencing and signage erected. Heras fencing must be double clipped to aid security.

Access / egress routes must remain clear of materials / debris at all times.

The Principal Contractor must develop a fire risk management plan and identify the responsible person in accordance with the Regulatory Reform Fire Safety Order.

Contractor vehicles may only be left in areas with prior agreement of the client.

##### **6.2 Location of Temporary Site Accommodation & Compounds**

Welfare facilities to be provided by the Client and Principal Designer prior to works commencing on site.

The Principal Contractor must ensure that the accommodation is sufficient for the number of operatives on site and the works to be conducted.

Welfare facilities must comply with Schedule 2 of the CDM Regulations 2015.

The Principal Contractor must ensure suitable barriers and hoardings are erected and suitable signage is placed around the site.

Details of the location of lockable skips and material set downs must be provided and identified on a marked up drawing, together with access and egress routes.

A suitably trained nominated first aider must be on site at all times, details of their level of training should be included in the Construction Phase Plan.

A competent site supervisor must be on site at all times. Details of their training must be included within the Construction Phase Plan.

The Principal Contractor must ensure working areas and site compounds are secure and out of bounds to unauthorised persons, anti-lift blocks are to be used on Heras fencing, together with double clips.

##### **6.3 Location of Unloading, Layout and Storage Areas**

The Principal Contractor must provide details of deliveries to site and into the compound together with methods for transporting materials and equipment to the works area.

All unloading and storage must be within the confines of the site compound and agreed with the client.

Skips must be securely screened off and sited 5 metres from any building. They must be lockable especially where they contain flammable materials i.e. wood etc.

All deliveries must be escorted on and off site and when loading / unloading by a competent banksmen, reversing on site is to be avoided where possible.

Storage of paints / flammable substances and access equipment must be within suitable containers or removed from site at the end of the day. Details of storage containers / skips and their location must be provided in the Construction Phase Plan.

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**6.4 Traffic / Pedestrian Routes**

The Principal Contractor must ensure construction areas are secure and out of bounds to unauthorised persons with adequate barriers and signage displayed.

High visibility clothing to be worn at all times to differentiate between contractors, staff and visitors, together with ID for site operatives.

Traffic and pedestrian routes must be clearly defined by barriers and signage.

Areas are to be made secure and out of bounds to unauthorised persons.

Footpaths and access routes must be protected and kept clear of debris at all times.

**7.0 OVERLAP WITH CLIENTS UNDERTAKING**

Great care must be taken to avoid conflict and disruption to the normal daily routine and activities of the Centre of Ecology and Hydrology.

Noise must be kept to a minimum to avoid nuisance, where this is not possible the Client should be notified in good time in order to implement alternative arrangements.

A booking in system should be adopted for all operatives and visitors to site.

All operatives must wear identification badges and / or apparel with company logos.

All operatives must wear high visibility clothing and must be fully clothed at all times.

Close liaison between Principal Contractor and Client is essential to ensure the safe management of health and safety during the works.

The Client should be pre-warned of any disruptions to services, i.e. water, gas, electricity and networks in good time.

The Principal Contractor must identify the responsible person in accordance with the RRF50. Details of the Fire Management Plan is to be included in the Construction Phase Plan.

The Client will ensure the boiler room is cleared of all obstructions to allow the Principal Contractor to work without any hazards.

**8.0 SITE RULES**

- Clients own site rules
- Client confidentiality is to be respected at all times
- The Principal Contractor must take reasonable steps to ensure that only authorised people are allowed into any area where construction work is taking place
- The Principal Contractor must ensure that adequate personal protective equipment is worn by all operatives and visitors to the site when appropriate
- There is to be no smoking in the working areas or surrounding areas except in designated smoking areas (to be agreed with the Client)
- Secure storage arrangements are to be made on site for flammable fuels e.g. - diesel, liquid propane gas

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- Secure storage facilities to be provided on site in which to place dangerous equipment when not in use
- The site must at all times be kept clean, tidy and free of debris, which may present tripping hazards or cover excavations
- All ladders are to be removed to prevent access to scaffolding when site is closed
- The consumption of alcohol or drugs (other than those prescribed by a doctor) is prohibited on site. Any operative found to be under the influence of either of these substances will be dismissed from site
- The use of personal audio systems on site is prohibited
- No photography or video equipment is to be brought on site without written authority from the Client
- Operatives will exercise reasonable care for the health and safety of himself or others who may be affected by his acts or omissions at work
- Operatives will report back to their employer anything which may affect health and safety issues
- Site operatives must not intentionally or recklessly interfere with anything provided in the interests of health, safety and welfare
- All machinery, equipment etc. when not being used must be immobilised and made safe
- All operators of machinery and tools including site vehicles must be competent, fully trained and able to carry out the job properly without risks to health and safety
- All electrical equipment is to display a current test tag or certificate and is to be used in accordance with manufacturer's instructions by trained operatives, be properly maintained and guarded where necessary and transformed to 110 volts. Residual current devices to be used on mains powered equipment
- The contractor shall be responsible for strict compliance with the requirements of the Clean Air Act 1993. Burning of rubbish on the site will not be permitted at any time

#### **9.0 CONTINUING LIAISON**

The Principal Contractor shall, so far as is reasonably practicable, ensure information is passed to other Contractors on site and that they in turn provide training and information to employees.

The Principal Contractor shall ensure discussions with and advice from site operatives and that there are arrangements for the co-ordination of views from people on site.

Should the design need to be changed in order to reflect unforeseen circumstances then the matter will be co-ordinated by the Contract Administrator. The Principal Designer must be informed and the Principal Contractor must ensure that adequate arrangements for Health and Safety are covered in the revision.

The Principal Designer must be informed of any changes made to the design after the contract commences in order that the Health and Safety implications of such changes may be considered and information passed on to client on completion.

Design changes must not be made until the proposed changes have been accepted by the Client and the Principal Designer.

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### **10.0 ENVIRONMENTAL PROTECTION**

#### Water Pollution

It should be noted that under section 85 of the Water Resources Act 1991, it is an offence to discharge poisonous, noxious or polluting materials, into any "controlled waters", either deliberately or accidentally.

Polluting materials include silt, cement, concrete, oil, petroleum spirit, sewage or other debris and waste materials.

"Controlled waters" include all watercourses and water contained in underground strata.

Road drains and surface water gullies generally discharge into controlled waters and should be treated as such.

The washout from concrete mixing equipment or the cleaning of ready mix concrete Lorries must not be allowed to flow into any drain or watercourse.

Site roads must be regularly scraped and kept free from deposits in order to prevent silt, oil or other materials entering any drain or watercourse.

If a polluting discharge should occur, the material should be contained (by using sand or soil, for example) and the Environment Agency should be notified immediately at the nearest office. For further information, or in the event of pollution, contact the nearest Environment Agency office.

### **11.0 REQUIREMENTS OF THE PRINCIPAL CONTRACTOR**

#### **11.1 The Construction Phase Plan**

The Principal Contractor must present the Construction Phase Plan to the Principal Designer showing how the works on site will be managed safely. The Requirements of the Construction Phase Plan can be found in Appendix 'B'.

### **12.0 PROVISION OF PROJECT INFORMATION FOR HEALTH AND SAFETY FILE**

The Principal Designer is responsible for the collation of all information produced during the design and construction of the project for incorporation into the Health and Safety File. There is a legal requirement for the Health and Safety File to be retained by the building owner/user and to pass on information within to assist designers or persons carrying out maintenance or replacement work in the future.

Although it is not possible to provide a complete list of information required for the Health and Safety File before the works commence the following list identifies the majority.

Information to be provided by the Principal Contractor:

- Suppliers names, addresses and telephone numbers
- Subcontractors names, addresses and telephone numbers
- Operation manuals, Maintenance Manuals and Guarantees for plant and equipment (including heating, ventilation, plumbing, electrical, fire, smoke, intruder alarms etc)
- Electrical and Emergency Lighting Completion Certificates
- Gas, Fire Alarm and Security Alarm Certificates
- Fire/Combustibility Test and Treatment Certificates
- As fitted Mechanical and Electrical Installations Drawings

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- COSHH data sheets for hazardous materials used in the works
- Special instructions for items requiring frequent inspection and maintenance
- Disposal certificates for hazardous waste
- As Built Drawings

All information to be provided in electronic format and paper copy.

The Contractor shall carry out such investigations as he deems necessary to enable him to fulfil his duties as Principal Contractor.

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**APPENDIX A**  
**HEALTH AND SAFETY**  
**HAZARD AND RISK REGISTER**

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HEALTH AND SAFETY HAZARD AND RISK REGISTER**

Item No:	Design Element	Hazard	Project Phase	Recommended Control Measures	Actions
1.	Site access – construction activities	General Access and egress / pedestrians / vehicles Construction activities Damage to existing building / finishes	Construction	Development of the Traffic Management Plan Identify access routes leading to and away from the site Suitable Signage to be displayed in prominent locations and access requirements detailed to all contractors and deliveries All Traffic Management Controls to be approved by the Client and Design Team  Access routes to be protected and details provided Principal Contractor to visit site and identify all access to the works areas with suitable segregation and investigate ground conditions across the vehicle access route Identify segregation on a drawing	Client Principal Contractor Design Team
2.	Site and compound	Conflict of works operations and site set up / accommodation	Construction	Proposed site compound to be agreed with the Client / Design Team Details of access routes to the site to be provided and agreed with the Client and Design Team Suitable site fencing to be erected ensuring segregation provision for Pedestrian and Vehicle routes	Principal Contractor Client Design Team

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Item No:	Design Element	Hazard	Project Phase	Recommended Control Measures	Actions
3.	Access routes Traffic / pedestrian management	Collision Restricted routes Obstruction of emergency access routes	Construction	Traffic control measures to identify site restrictions i.e. size of vehicles, overhead cables Glazing within close proximity to works and pedestrian routes to be protected Ensure induction identifies traffic controls Details of access routes and restrictions within and around the building to be clearly identified Ensure access routes for emergency vehicles Emergency assembly points to remain unobstructed Principal Contractor to ensure control measures for segregation and access routes are fully identified within the site induction	Principal Contractor Design Team
4.	Security	Trespass onto site Injury to persons Damage to plant and equipment, theft Access from unauthorized persons	Construction Post Construction	Suitable fencing, hoarding enclosing site, signage warning of dangers Site to be prohibited to unauthorized persons Plant & equipment to be removed from site when not in use Access equipment to be stored away at the end of the day	Principal Contractor Design Team Client

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<b>Item No:</b>	<b>Design Element</b>	<b>Hazard</b>	<b>Project Phase</b>	<b>Recommended Control Measures</b>	<b>Actions</b>
5.	Asbestos	Fatal Disturbance - Release of fibres - Potential explosive	Asbestos Construction	Refurbishment & demolition survey to be reviewed prior to works commencing on site Contractors to have undertaken asbestos awareness training Works to cease should any suspect material / substances be discovered	Client Design Team Principal Contractor
6.	Mechanical and electrical installations Working with / near to services / utilities Existing services	Locations of plant and equipment Contact with live services Electrocution Contact with hot surfaces Gas leaks Fire	Construction Post Construction	Design layouts to identify service runs Installation ease and access requirements Location of plant Identify requirements for gaining access, maintenance, testing, replacement Unknown services to be identified & future requirements agreed Written / drawing information, marked up supplies identifying services & isolation points Permit to work system to be introduced & notified to all operatives M+E service drawings to be provided for review	Principal Contractor Design Team Client
		Positioning of fittings i.e. lights for maintenance access Valves for ease of isolation	Construction Post Construction	Specify suitable equipment to meet user requirements Maintenance requirements to be detailed Access to all fixed plant and equipment to be incorporated within the design	Principal Contractor Design Team Client

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<b>Item No:</b>	<b>Design Element</b>	<b>Hazard</b>	<b>Project Phase</b>	<b>Recommended Control Measures</b>	<b>Actions</b>
6. cont.	Mechanical and electrical installations Working with / near to services / utilities Existing services	Heating and cooling to meet clients requirements	Construction Post Construction	Design of heating and cooling System to meet the temperature ranges required for each location and use Ventilation requirements Testing & commissioning COSHH information	Principal Contractor Design Team Client
		Equipment selection Compatibility	Construction	All equipment must be compatible with end user requirements	Principal Contractor Design Team Client
7.	Layout	Access routes within and around building Security	Construction End Use	Access routes to be able to withstand maintenance equipment i.e. M.E.W.P	Principal Contractor Design Team Client
8.	Maintenance	Works at height Access arrangements Maintenance schedules and procedures	Post Construction	Designers to reduce risks within their designs Identification of cleaning and maintenance around and within the building Access arrangements to be agreed with the Client Details to be provided for inclusion in the Health and Safety File	Principal Contractor Design Team Client

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Item No:	Design Element	Hazard	Project Phase	Recommended Control Measures	Actions
9.	Working at Height	Falling from height Being struck by falling objects Transport of equipment and materials Maintenance Roof lights Fragile roof	Construction  Post Construction	Suitable means of access to be implemented No works to be conducted beneath works at height Where possible eliminate the need for work at height 3 points of contact to be maintained when climbing / conducting works Ensure adequate edge protection in place Segregation works area Temporary works design to be developed by a competent person and reviewed as necessary Maintenance procedures to be developed and agreed with the Client	Client Design Team Principal Contractor
10.	Tripping hazards Materials / equipment / debris	Slips, trips, falls	Construction	Access and egress routes to be clear from debris, equipment etc. Access routes to be protected Waste materials to be disposed of in suitable containers Good housekeeping Emergency exit routes to remain clear Where necessary implement alternative routes, which must be agreed with the Client	Client Design Team Principal Contractor

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Item No:	Design Element	Hazard	Project Phase	Recommended Control Measures	Actions
11.	Noise / Vibration	Noise pollution – damage to hearing  Vibration (HAVS)	Construction	Minimise noise and vibratory risk by careful selection of power tool Ensure the correct PPE is identified and used Works to be carried out in accordance with current regulations Equipment to be used in accordance with manufacturers instruction and HSE guidelines	Client Design Team Principal Contractor
12.	Foreign bodies in the eye	Temporary / permanent damage to eye / sight	Construction	Issue and wear suitable PPE (Goggles / eye protection) Ensure that a first aid kit including eye wash is available on site Ensure equipment is not operated whilst operatives are within the affected area Face fit masks to be worn, where necessary	Principal Contractor
13.	Inadequate welfare facilities	Disease / Contamination	Construction	Welfare facilities to be provided throughout the construction phase and in accordance with Schedule 2 of the CDM Regulations 2015	Principal Contractor  Client

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Item No:	Design Element	Hazard	Project Phase	Recommended Control Measures	Actions
14.	Manual Handling	Skeletal / Muscular injury	Construction	Conduct manual handling assessment Weights of plant, equipment and materials to be established prior to handling Ensure employees have had manual handling training Where possible use alternative light weight materials or handle materials / equipment in manageable loads i.e. not exceeding 20kgs Designers to propose materials below 20kg Where possible use mechanical aids	Design Team Client
15.	Lone Working	Accident Fatal Violence	Surveys Construction	Lone working to be avoided Periodic visits from foreman Regular contact with head office Contact via mobile phone	Principal Contractor Design Team
16.	Excessive dust	Inhalation Contamination Silica dust	Construction	Ensure dust suppression methods are adequate Ensure dust masks are issued, worn and maintained – face fits masks Select equipment with integral dust suppression Do not use the machinery whilst people nearby or approaching Protect fire detection systems from dust ingress Avoid chasing out	Principal Contractor

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Item No:	Design Element	Hazard	Project Phase	Recommended Control Measures	Actions
17.	Falls of objects / materials from heights	Being struck by falling objects / structures collapse	Construction	Conduct site specific risk assessments for transporting materials / equipment when working at height Advise building users of restricted areas, adequate signage and segregation to be provided Temporary works design to be developed Method statement to be developed for removal of plant	Client Design Team Principal Contractor
18.	Chemicals / substances	Contamination / disease	Construction	Issue COSHH data sheets Ensure the correct PPE is identified and used Adequate storage facilities to be provided Works to cease should unknown substances / materials be discovered Adequate ventilation to be provided	Client Design Team Principal Contractor
19.	Hot Works	Fire Explosion Burns	Construction	Permit to work to be issued Adequate investigations to be conducted before and after works Provision of firefighting equipment	Client Principal Contractor
Register produced by:  Nigel Parfitt		Name  Nigel Parfitt	Signature		Date  17 May 2017

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**APPENDIX 'B'**

**CONSTRUCTION PHASE PLAN REQUIREMENTS**

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## APPENDIX 'B'

### THE CONSTRUCTION PHASE PLAN REQUIREMENTS

#### Construction Phase Plan

When drawing up the Construction Phase Plan you should consider each of the following topics. Information should be included in the plan where the topic is relevant to the work proposed. The plan sets out how health and safety is to be managed during the construction phase. The level of detail should be proportionate to the risks involved in the project.

#### 1. Description of Project

- a) Project description and programme details including any key dates
- b) Details of Client, Principal Designer, Designers, Principal Contractor and other Consultants
- c) Extent and location of existing records and plans that are relevant to health and safety on site, including information about existing structures when appropriate

#### 2. Management of the Work

- a) Management structure and responsibilities
- b) Health and safety goals for the project and arrangements for monitoring and review of health and safety performance
- c) Arrangements for:
  - i) Regular liaison between parties on site
  - ii) Consultation with the workforce
  - iii) The exchange of design information between the Client, Designers, Principal Designer and Contractor on site
  - iv) Handling design changes during the project
  - v) The selection and control of contractors
  - vi) The exchange of health and safety information between contractors
  - vii) Site security
  - viii) Site induction
  - ix) On-site training
  - x) Welfare facilities and first aid
  - xi) The reporting and investigation of accidents and incidents including near misses
  - xii) The production and approval of risk assessments and written systems of work
- d) Site rules (including drug and alcohol policy)
- e) Fire and emergency procedures

#### 3. Arrangements for Controlling Significant Site Risks

- a) Safety risks including:
  - i) Delivery and removal of materials (including waste) and work equipment taking into account any of risks to the public, for example during access to or egress from the site
  - ii) Dealing with services – water, electricity and gas including and temporary installations

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- iii) Accommodating adjacent land use
  - iv) Preventing falls
  - v) Work with or near fragile materials
  - vi) Control of lifting operations
  - vii) The maintenance of plant and equipment
  - viii) Traffic routes and segregation of vehicles and pedestrians
  - ix) Storage of materials (particularly hazardous materials) and work equipment
  - x) Any other significant safety risks
- b) Health risks including:
- i) Manual handling
  - ii) Use of hazardous substances, particularly where there is a need for health monitoring
  - iii) Reducing noise and vibration
  - iv) Any other significant health risks i.e. dust