Public Health England

Contract Documents

Temporary Research Ward

Contract Reference 190098

Contract Data

NEC3 Engineering and Construction Short Contract 2013

A contract between Public Health England

Porton Down, Salisbury, SP4 0JG

and THURSTON GROUP LIMITED

QUARRY HILL IND ESTATE, WAKEFIELD, WEST YORKS. WF4 6AJ

for **Design, construction, delivery and installation of a modular temporary research ward**

Contents Page

Contract Data

	The *Employer* is
Name	Public Health England, Porton Down, Salisbury, SP4 0JG
Address	
Telephone	
E-mail address	
The *works* are	Design, construction, delivery and installation of a modular temporary research ward
The *site* is	**Shown on drawings**
The *starting date* is	**25/02/2021**
The *completion date* is	**25/08/2021**

The *period for reply* is	**2**	**weeks.**
The *defects date* is	**52**	**Weeks after Completion.**
The *defect correction period* is	**2**	**Weeks.**
The *delay damages* are	**N/A**	
The *assessment day* is the	**Last Friday**	**Of each month.**
The *retention* is	**0**	**%.**

Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	**Yes**

	The *Adjudicator* is
Name	**The President of Royal Institution of Chartered Surveyors**
Address	**Parliament Square** **London , SW1P 3AD**
Telephone	**0870 333 1600**
E-mail address	**contactrics@rics.org**

Contract Data

The interest rate on late payment is .....8..... % per complete week of delay.

The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer*'s property in excess of **£5,000,000** for any one event.

The *Employer* provides this insurance: N/A

The minimum amount of cover for the third insurance stated in the Insurance Table is **£5,000,000**

The minimum amount of cover for the fourth insurance stated in the Insurance Table is **£5,000,000**

The *Adjudicator nominating body* is **Royal Institute of Chartered Surveyors**

The *tribunal* is The courts of England and Wales

If the *tribunal* is arbitration, the arbitration procedure is TBC

The conditions of contract are the NEC3 Engineering and Construction Short Contract (April 2013) and the following additional conditions

Z1: Assignment

The Contractor shall not, without the written consent of the Employer, assign this Contract. In the event of transfer by the Employer of this freehold or of a grant by the Employer of a leasehold interest in the whole of the premises comprising the Works, the Employer may at any time after Completion of the Works, assign to any such transferee or lessee, the right to bring proceedings in the name of the Employer (whether by arbitration or litigation) to enforce any of the terms of this contract made for the benefit of the Employer hereunder. The assignee shall be stopped from disputing any enforceable agreements reached between the Employer and the Contractor and which arise out of and relate to this Contract (whether or not they are or appear to be a derogation from the right assigned) and made prior to the date of any assignment.

Z2: Site Rules and Regulations

The Contractor shall ensure that all of its staff shall comply with all the Employer's site rules and regulations when visiting or carrying out work at the Employer's premises and shall comply with all safety and security policies and procedures of the Employer in each case as notified to such staff. If access to the Employer's premises is required outside of normal business hours, the representative nominated by the Employer for the purposes of this Agreement should be notified in advance, in order for appropriate security arrangements to be made.

The Contractor shall note that smoking is strictly prohibited other than in a designated external area in the Employer's site. This regulation is rigidly enforced and any breach of this policy will involve the offender being removed from the site.

Z3: Publicity

The Contractor shall not issue any press release or other publicity materials or make any representation in respect of the existence of this Agreement or the subject matter thereof without the prior written consent of the Employer. However, this restriction shall not apply to announcements or disclosures required by law except that in such event the parties shall co-ordinate to the extent possible with respect to the wording of any such announcement.

Contract Data

The *Contractor*'s Offer

The *Contractor* is

Name THURSTON GROUP LIMITED

Address QUARRY HILL IND ESTATE, WAKEFIELD, WEST YORKS. WF4 6AJ

Telephone

E-mail address

The percentage for overheads and profit added to the Defined Cost for people is..... 10 %.

The percentage for overheads and profit added to other Defined Cost is..... 10 %.

The *Contractor* offers to Provide the Works in accordance with the *conditions of contract* for an amount to be determined in accordance with the *conditions of contract*.

Signed on behalf of the *Contractor* Thurston Group Ltd

Name Matthew Goff

Position Managing Director Date 31-Mar-2021

Signature Matthew Goff

The *Employer*'s Acceptance

The *Employer* accepts the *Contractor*'s Offer to Provide the Works

Signed on behalf of the *Employer*

Name Donald Shepherd

Position Finance & Commercial Director

Signature Donald Shepherd Date 01-Apr-2021

Contract Data

Price List

Item number	Description	Price

Please Refer to Appendix A

The total of the Prices	£636,688.00

Contract Data

Works Information

1 Description of the *works*

Design, construction, delivery and installation of modular temporary research ward

2 Drawings

Drawing number	Revision	Title
All drawings		
Attached in Appendix C – D and detailed in E		

Contract Data

Works Information

3 Specifications

Title	Date or revision
Attached in Appendix B – C – D	

4 Constraints on how the Contractor Provides the Works

N/A

Contract Data

Works Information

5 Requirements for the programme

Outline Programme including any Design work, Approvals, Procurement, and Installation & Commissioning as required. As a minimum the programme must show the proposed sequencing and timing of the following sections and should clearly identify the critical path:

Mobilisation
Approvals
Procurement for various elements/Equipment
Site Set Up
Equipment Installation
Testing/Commissioning

6 Services and other things provided by the *Employer*

Contract Data

Site Information

Contents

SI 100 THE SITE:

The works are situated at Public Health England, Porton Down, Salisbury, Wiltshire
THE EXISTING BUILDING(S):
The Contractor's attention is drawn to the adjacency and close proximity of existing buildings which will remain fully operational throughout the construction period and the access and working limitations of the site. The Contractor shall be deemed to have visited the site and to have satisfied himself as to the means of communication, access to the site, the areas available for storage, the extent of work, the nature of the site, the existence of asbestos or other potentially hazardous circumstances affecting health & safety, and all the conditions under which the works will be carried out, together with conditions affecting the supply of labour and materials and to have made due allowance within the Contract sum. No claim arising from the lack of any such knowledge will be entertained.

The existing buildings, plant, equipment and paved areas adjacent to this site will be in constant use throughout the contract period and access to all areas surrounding the Contractor's site must be maintained free from all obstructions at all times for the use of the Employer's staff and other authorised personnel and the Contractor is to liaise with all others working within the site on the mutual use of access routes and any necessary diversions.

The Contractor is to be restricted to the working areas required to carry out the works, the authorised access routes to and from the working areas and other restrictions shown on drawings.

SI 200 EXISTING BUILDINGS ON/ADJACENT TO THE SITE:

Refer to the Pre-construction Information for the Installation of

PROTECTION TO EXISTING BUILDING:
The Contractor must protect, uphold and maintain all existing structures, live drainage, ducts, water, gas and other mains or power services and if any such items are damaged he shall be liable for and shall indemnify the Employer against any expense, liability, loss, claim or proceedings provided always that the damage is due to any negligence, omission or default of the Contractor's workpeople or those of his subcontractors.

The Contractor shall ensure there is no unauthorised access to the site or building.

Contract Data

Site Information

The Contractor must not make connections or interfere with the operation of existing services, such as live drainage, water, gas or other mains or power services without the written permission of the Employer. The Contractor is to comply in all respects with the Public Health England Permit to work Policy.

The Contractor must give two weeks notice before any service is interrupted except by agreement in accordance with the Permit to Work Procedure.

EXISTING MAINS/SERVICES:

The Contractor must undertake his own investigations to ascertain the service positions or positions of other unknown services. Prior to any construction taking place the Contractor is to confirm in writing that through his own investigations of the area has been undertaken and that the service utilities have been consulted. No claim for additional costs will be accepted due to information being inaccurate/incomplete.

The Contractor is responsible for taking all necessary precautions for protecting the services during the building operation and ensures that these are not damaged in any way. Any such damage must be made good to the satisfaction of the Employer any Statutory Authority, and adjoining owners or occupiers at the Contractors expense.

SITE INVESTIGATION:

The Contractor shall be responsible for all additional site investigation works required as necessary and include all such costs within his Contract Sum. No variation will be issued through the Contractor's lack of knowledgeof the existing building, its structure, services, ground conditions etc.

SI 300 ACCESS TO THE SITE:

Access to the site for construction and delivery vehicles shall be from the A30, access shall not be permitted through the villages of Porton or Idmiston

The Contractor is required to ensure that access and public rights of way outside the site are maintained at all times for the duration of the project and kept clean and clear of mud and debris. To this end the Contractor is required to install on site a system of wheel washing for approval by the Employer prior to construction activities starting on site. The Contractor shall not be entitled to a Compensation Event if works are halted for a failure to comply with this requirement.

Within the secure area of the existing PBL facility:

Security must be maintained at all times, the Contractor shall liaise with DSTL's security personnel to ensure this requirement is fulfilled. See Pre-Construction Information Pack for PHE Health, Safety and Security Guidance Notes.

ACCESS TO EXISTING ADJACENT BUILDINGS:

The Contractor's attention is drawn to the adjacent and close proximity of existing buildings and the access and working limitations of the restricted site.

There is to be no access for the Contractor's personnel including his sub-contractors' into existing buildings unless specific site works are to be carried out and subject to the prior written consent of the owner.

Contract Data

Site Information

PARKING:

USE OF THE SITE:
Do not use the site for any purpose other than carrying out the Works. The Contractor shall obtain the approval of the Employer for the erection of all temporary structures, temporary paths and roads, spoil heaps, material dumps, plant, machinery and the like which are necessary for the execution of the works.

Do not display or permit advertisements to be displayed on site without the consent of the Employer.

Ensure that no material or equipment is brought onto site except that required for the works.

SURROUNDING LAND/BUILDING USES:
The Building will be in constant use over the duration of the contract. The contractor must ascertain for himself any information he may require to ensure the safety of all persons and the works.

Do not use the surrounding land or building(s) for any purpose other than carrying out the Works.

SI 400 RISKS TO HEALTH AND SAFETY:
Refer to the Construction Information Pack
The accuracy and sufficiency of this information is not guaranteed by the Employer and the Contractor must ascertain for himself any information he may require to ensure the safety of all persons and the works.

SI 500 SITE VISIT:

The Contractor shall be deemed to have visited the Site and acquainted himself with the restrictions and other matters, which may affect the works.

The Contractor must undertake his own investigations to ascertain positions of unknown services. Prior to any excavations taking place the Contractor is to confirm in writing that a thorough CAT scan of the area has been undertaken.
The Contractor is responsible for taking all necessary precautions for protecting services to be retained during the installation and ensure that these are not damaged in any way. Any such damage must be made good to the satisfaction of the Employer, any Statutory Authority affected and adjoining owners or occupiers, if appropriate, at the Contractor's expense.
No diversion of any of the existing services, etc shall be carried out without the prior written approval of the Employer.

The Contractors attention is drawn to the presence of existing services crossing the proposed site access route. Appropriate protection measures are to be agreed with the Employer.

Appendix A – The Prices

NEC3 Activity Schedule for PHE

Design work	£	5,900.00
Contract Management/admin		
Construction of modular units shells	£	143,485.65
Transport Shells to Envair for fit out	£	8,856.00
Mechanical Fit Out	£	162,297.17
Electrical Fit Out	£	82,918.05
Fabric Installation	£	169,099.00
Furnishings	£	9,409.64
Site Works		
Delivery	£	13,770.00
Site Cranage	£	6,000.00
Installation	£	11,503.80
Site Works	£	5,730.02
Commissioning	£	6,535.35
Site Prelims/ Management	£	8,723.32
Health & Safety / O&M Manuals / Drawings	£	900.00
SBEM/EPC	£	420.00
Air tightness test	£	1,140.00

£	**636,688.00**

Appendix B – Works Information General Prelims

WORKS INFORMATION GENERAL PRELIMINARIES

Contents

WI 100 DESCRIPTIONS OF THE WORKS

WI 110 PROJECT OBJECTIVES

The project philosophy listed below will provide the ethos by which the project team, comprising the Employer, Contractor, Project Manager, Supervisor, designers, quantity surveyor and end users work together to a successful conclusion.

The philosophy for this project is that the Contractor takes responsibility for the construction of all works in accordance with the scope and standards as defined within the Works Information and is required to provide the finished works implicit in this contract.

In order to clarify the understanding of the parties to this contract, it is the intention that the Contractor's responsibility encompasses such items as the following:

- Carry out all necessary surveys and investigations to be satisfied of the physical conditions of the Site.
- Achieve zero defects instituting a procedure in co-operation with the Project Manager and the Supervisor to achieve this aim in respect of each activity. No payment will be made until the Supervisor is satisfied that an activity is complete and free of Defects.
- Involve the Employer in decisions and ensure that he is given choices in sufficient time for him to influence any event effecting cost, quality and time.
- Promote the Employer's aims and objectives of:
    - creating a project team based on mutual trust, co-operation and best practice.
    - instilling a "right first time" and "don't mess it up" attitude on all the project team.
    - commitment to incorporating good environmental practices of resource and energy efficiency, healthy buildings and materials, ecologically, socially and aesthetically sensitive without compromising functionality, quality or cost performance.

WI 105 DESCRIPTION OF THE WORKS

The scope of works is defined by the Works Information including the User Requirement Specification

Subject to the conditions of contract, the Contractor will provide the Works in accordance with the Works Information.

The project is to build a modular building to replicate a hospital ward as per drawings supplied this shall include the design of the works.

WI 200 GENERAL CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS

WI 205 GENERAL CONSTRAINTS

SITE VISIT:
The Contractor shall be deemed to have visited the site and acquainted himself with the restrictions and other matters, which may affect the works.

METHOD/SEQUENCE OF WORK:
The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.

The Contractor is to note the following limitations on method/sequence of works which must be taken into account when planning/pricing this project:-

- In order to limit potential issues upon the PHE site where possible the majority of the works shall be carried out off site.
- Temporary fencing shall be erected to ensure a separation between the construction area and the PHE site. This shall be monitored.

- Whilst there is no specific order in which each section area is refurbished no work will be allowed to commence without the agreement of the Project Manager.
- Any works that will prevent the use of other facilities on the site will need to be strictly agreed in advance, and the contractor should allow for this within his tender.

The notification procedure to obtain prior written consent from the Project Manager is to be followed.

THE SITE:

The works are situated at PHE, Porton Down, Salisbury, Wiltshire, SP4 0JG.

The Contractor is to be restricted to the working areas required to carry out the works.

SITE BOUNDARIES:

The Contractor's operations and personnel movements will be confined to the Site and Working Areas together with the areas allocated by the Project Manager for the erection of temporary buildings and storage of materials.

ACCESS TO THE SITE:

Refer to Pre Construction Information within the Site Information for details of access arrangements.

Access to the site for construction and delivery vehicles shall be from the A30, access shall not be permitted through the villages of Porton or Idmiston.

The Contractor is required to ensure that access and public rights of way inside and outside the site are maintained at all times for the duration of the project and kept clean and clear of mud and debris.

The site operates a one way system which will be maintained and adhered to.

Where this access route will be affected due to the works PHE will be informed and alternative signing will be arranged and agreed with the Project Manager.

ACCESS TO EXISTING ADJACENT BUILDINGS:

The Contractor’s attention is drawn to the adjacent and close proximity of existing buildings, many of which include facilities of a sensitive nature and the access and working limitations of the restricted site.

There is to be no access for the Contractor’s personnel including his sub-contractors’ into existing buildings unless specific site works are to be carried out and subject to the prior written consent of the Project Manager.

USE OF THE SITE:

Do not use the site for any purpose other than carrying out the Works.

The Contractor’s operations and personnel movements will be confined to the site and working areas together with the area allocated by the Project Manager for the erection of temporary buildings, parking and storage of materials.

The Contractor shall obtain the approval of the Project Manager for the erection of all temporary structures, temporary paths and roads, spoil heaps, material dumps, plant, machinery and the like which are necessary for the execution of the works.

Do not display or permit advertisements to be displayed on site without the consent of the Project Manager.

Ensure that no material or equipment is brought onto site except that required for the works.

The Contractor shall exercise proper control over workpeople whether in his own employ or that of his Subcontractors and prevent their trespassing beyond the immediate vicinity of the work in hand and he shall immediately dismiss or replace any workpeople trespassing.

The final position of the Contractor's compound, accommodation, storage areas, craneage and other such temporary arrangements and/or structures on site will be the subject of a prior submission to and approval of the Project Manager prior to commencing the works on site.

The Contractor shall be responsible for clearance of any areas required for the Contractor's compound, accommodation, storage areas, craneage and other such temporary arrangements and/or structures prior to commencement of the works.

These areas are to be reinstated by the Contractor on completion to the satisfaction of the Project Manager.

THE EXISTING BUILDING(S):

Refer to Pre Construction Information Pack within the Works Information.

The existing buildings, plant, equipment and paved areas adjacent to this site will be in constant use throughout the contract period and access to all areas surrounding the Contractor's site must be maintained free from all obstructions at all times for the use of the Employer's staff and other authorised personnel, emergency services and the Contractor is to liaise with all others working within the site on the mutual use of access routes and any necessary diversions.

The Contractor shall ensure the compound; storage and parking areas and all other existing areas are reinstated at his expense to the same condition as at the time of possession.

OCCUPIED PREMISES:

The existing and surrounding buildings will be occupied and/or used during the contract.

The Contractor must allow access to all non-work areas throughout the construction period.

Carry out the Works without undue inconvenience and nuisance and without danger to occupants and users.

The Contractor shall provide, erect, maintain, adapt and on completion remove protective barriers, walkways, screens, tarpaulins, dust sheets, etc. required for the protection of the occupants and users, general public and employees, agents or servants of the Employer and any other person upon the Employer's property.

If it transpires that compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be paid to the Contractor, provided that such overtime is authorised by the Project Manager in advance.

SITE INVESTIGATION:

The Contractor shall be responsible for all additional site investigation works required as necessary and include all such costs within his Contract Sum.

No variation will be issued through the Contractor's lack of knowledge of the existing building, its structure, services, ground conditions etc.

SCAFFOLDING:

Ensure that standing scaffolding is erected early enough and/or dismantled late enough to suit the programmes of all subcontractors.

Ensure that no scaffolding encroaches into access routes which must be kept clear for the fire brigade, etc.

All scaffolding, hoists and hoarding are to be secure to prevent access to the site.

The use of scaffold fanning is considered appropriate on key access points as well as the use of additional scaffolding 'impact' protection may also be required.

The contractor shall ensure there is no unauthorised access to the site or building via the scaffold or any contractor temporary measures.

WORKING HOURS:

The Contractor must restrict his work on site to within the hours of 8:00am and 5.00pm Monday to Friday inclusive except Bank Holidays.

Subject to the constraints and requirements detailed elsewhere within the contract, the Contractor will be entitled to work continuously without interruption within the site during these working hours.
Apart from works required to be carried out “out of hours” as stated elsewhere, no construction work will take place outside these hours on weekends or Bank Holidays, except with the prior written consent of the Project Manager.

Subject to the above restrictions, the Contractor may work the hours required in order to meet the completion date and no claim for out of hours working or overtime working will be entertained.

WORKS OUTSIDE NORMAL WORKING HOURS:

Any works that will prevent the use of other facilities on the site will need to be strictly agreed in advance, and the contractor should allow for this within his tender.

The notification procedure to obtain prior written consent from the Project Manager is to be followed.

OVERTIME WORKING:

Whenever overtime is permitted to be worked and subject to availability of supervision by PHE, give the Project Manager not less than 5 working days’ notice, specifying times, types and locations of work to be done.

Concealed work executed during overtime for which notice has not been given may be required to be opened up for inspection and reinstated at the Contractor's expense.

DELIVERIES:

The Contractor must maintain clear access for deliveries to the existing buildings in the vicinity at all times.

Movement times for heavy equipment will be agreed in advance with the Project Manager.

The Contractor is to adopt a “just in time” policy with respect to deliveries to ensure that access is not restricted by waiting lorries and the like.

The Contractor is to ensure that appropriate site personnel are present to receive all deliveries.

The Contractor is to liaise with the Project Manager and provide notification 24 hours in advance of any intended deliveries to ensure the details are registered at the security gatehouse.

The Contractor shall bear any costs incurred if deliveries are turned away from the site from failure to observe the above.

CAR PARKING:

The Contractor should note that parking and a lay down area will be provided in one of the PHE car parks.

FLOODLIGHTS:

Any floodlighting used in the Contractor’s compound or anywhere else on the Site will be as approved by the Project Manager.

RADIOS:

Transistor radios and other sound reproducing devices will not be used.

FACILITIES:

The Contractor shall not enter or carry out work in the existing facilities without prior approval by the Project Manager.

EXPLOSIVES:

Do not use.

NOISE:

Comply generally with the recommendations of BS 5228: Part 1, clause 9.3 for minimising noise levels during the execution of the works.

Noise levels from the works are to be kept within acceptable limits dictated by the Local Authority.

Fit all compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.

Do not use pneumatic drills and other noisy appliances without consent of the Project Manager.

Do not use or permit employees to use radios or other audio equipment in ways or at times which may cause nuisance.

STORAGE OF FUEL AND CHEMICALS:

The Contractor shall identify to the Project Manager the intention to store fuel or chemicals on site as part of the construction works. Method statements/risk assessments shall be provided and all materials stored in an appropriate manner.

EMPLOYER SPECIFIC POLICIES:

The Contractor shall comply with the Employers “Health Safety and Security Guidance Notes for Contractors” contained within the Construction Information Pack at Section C Part 2.4.

BURNING ON SITE of materials arising from the work will not be permitted.

SMOKING ON SITE:

Smoking and Vaping on site is strictly prohibited in any building or area within the security fence other than the designated smoking shelter adjacent to the site incinerator building. Vaping shelters are also provided

INSURANCE CLAIMS:

If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, forthwith give notice in writing to the Employer and the Project Manager.

Indemnify the Employer against any loss which may be caused by failure to give such notice.

WORKS OF EMERGENCY:

In the event of works of emergency being required the Contractor is to notify the Project Manager immediately such works are commenced otherwise no claim for additional payments will be entertained.

WI 210 CONFIDENTIALITY

INFORMATION RESTRICTIONS:

The Contractor will not publish any information or drawing concerning this Contract nor take photographs or use the works or the Site for advertising except with the written consent of the Project Manager.

This restriction shall not apply to disclosures required by Law except that in such event the parties shall co-ordinate to the extent possible with respect to the wording of such announcements

WI 215 SECURITY AND PROTECTION OF THE SITE

SECURITY:

The site is within a security fence with strict control regarding access and egress.

Security must be maintained at all times, the Contractor shall liaise with PHE’s security personnel to ensure this requirement is fulfilled. See Pre-Construction Information Pack for PHE Health, Safety and Security Guidance Notes.

PHOTOGRAPHS:

Photographs can only be taken with the express permission of the Project Manager in writing.

All images are to be taken using a PHE camera and all photographs shall be vetted prior to release by the PHE Head of Security.

All images shall be treated as Private and Confidential, OFFICIAL SESITIVE.

No guarantee is provided that permission for taking photographs will be given, any person found to be taking photographs without permission will be instructed to leave site immediately.

This shall not form part of a compensation event.

WI 220 SECURITY AND IDENTIFICATION OF PEOPLE

SECURITY:

SECURITY CHECKING:

All Contractors and external parties working on the Project will be expected to undergo a Baseline Standards Check and sign a declaration under the Official Secrets Act.

This will reinforce that they are not at liberty to discuss the detail of any sensitive aspects.

This will not replace any confidentiality agreements that their organizations are asked to enter into with the PHE, which will continue to remain in force.

Any persons failing to provide the required data or failing the security checks will not be permitted to engage on the project.

In a small number of instances, National Security Vetting may be required. In these cases, the individual is likely to have a comprehensive understanding of the zone 4, and/or a thorough understanding of the site security system, and /or have knowledge of the greater site detail.

These individuals will be identified by the PHE Management with input from the PHE Head of Security.

The Contractor is to closely liaise with the Project Manager and the Employer at all times during the contract and completely satisfy them that all matters raised are dealt with quickly and effectively.

The Contractor shall notify the security gate 24 hours in advance, the names of all site personnel expected to be working on the site and notifying in advance any deliveries scheduled to take place.

All Contractors personnel must sign in at the gatehouse before entering site and sign out when leaving. Security identity passes must be worn at all times when on site.

The Contractor will be required to keep records of all site operatives and have a security briefing and identity card system as part of the overall site induction process.

The Employer will from time to time ask the Contractor for the site operatives' records and this information will not be withheld.

Adequately safeguard the site, the Works, products, materials, plant, and any existing buildings affected by the Works from damage and theft.

Take all reasonable precautions to prevent unauthorised access to the site, the Works and adjoining property.

The Contractor must ensure that the site is secure at the end of each working day, and that any opening in the external envelope of the building under the control of the Contractor is adequately blocked up including the re-connection of intruder alarms disturbed.

The Contractor must also ensure that the occupied sections of the building remain secure during, and at the end of the working day.

WI 225 PROTECTION OF EXISTING STRUCTURES AND SERVICES

EXISTING BUILDINGS ON/ADJACENT TO THE SITE:

The existing buildings on the site are shown within the Pre-Construction Information. As well as specifically identified within the Works Information drawings and specifications.

PROTECTION TO EXISTING BUILDING:

The Contractor is to provide complete internal and external protection as necessary to the existing buildings and services, in particular, the external facades, roof areas and any external plant. If damaged,

the Contractor shall be liable for and shall indemnify the Employer against any expense, liability, loss, claim or proceedings provided always that the damage is due to any negligence, omission or default of the Contractor's workpeople or those of his subcontractors.

The Contractor must protect, uphold and maintain all existing structures, live drainage, ducts, water, gas and other mains or power services and if any such items are damaged he shall be liable for and shall indemnify the Employer against any expense, liability, loss, claim or proceedings provided always that the damage is due to any negligence, omission or default of the Contractor's workpeople or those of his subcontractors.

The Contractor shall ensure there is no unauthorised access to the site or building.

The Contractor must not make connections or interfere with the operation of existing services, such as live drainage, water, gas or other mains or power services without the written permission of the Project Manager/Employer.

The Contractor is to comply in all respects with the Public Health England Permit to Work Policy.

The Contractor must give two weeks' notice before any service is interrupted except by agreement in accordance with the Permit to Work Procedure.

EXISTING MAINS/SERVICES:

The Contractor must undertake his own investigations to ascertain the service positions or positions of other unknown services.

Prior to any construction taking place the Contractor is to confirm in writing that through his own investigations of the area has been undertaken and that the service utilities have been consulted.

No claim for additional costs will be accepted due to information being inaccurate or incomplete.

The Contractor is responsible for taking all necessary precautions for protecting the services during the building operation and ensures that these are not damaged in any way.

Any such damage must be made good to the satisfaction of the Project Manager, the Employer any Statutory Authority, and adjoining owners or occupiers at the Contractors expense.

No diversion of any of the existing services, etc. other than works expressly shown in the Works Information shall be carried out without the prior written approval of the Project Manager.

All services that affect the work areas, electrical and piped that will require isolation during the works must be carried out by the site maintenance contractor (Emcor) under the direction of the client's construction supervisor and the successful contractor.

The Contractors attention is drawn to the presence of existing services crossing the proposed site access route. This includes a concrete service duct with a weight limit of 6.5 tonnes.

Appropriate protection measures are to be agreed with the Project Manager.

EXISTING SERVICES:

The contractor shall ensure that all the existing services to be retained are protected.

Any necessary disruption to existing services or other areas not forming part of the works must be agreed with the Project Manager.

PROTECT AGAINST THE FOLLOWING:

NUISANCE:

Take all necessary precautions to prevent nuisance from smoke, dust, rubbish, vermin and other causes.

DUST CONTROL:

Contractor is to take all necessary steps to minimise dust transfer to all occupied areas outside the boundary of the works.

A number of the adjacent buildings include cleanroom type facilities and care must be taken to ensure the ingress of dust does not affect the clean room air quality within adjacent buildings.

ASBESTOS BASED MATERIALS:

Should any asbestos based materials be discovered, cease work in the vicinity, report immediately to the Project Manager any such discovery.

Avoid disturbing such materials. Agree with the Project Manager methods for safe removal or encapsulation.

FIRE PREVENTION:

Take all necessary precautions to prevent personal injury, death, and damage to the Works or other property from fire. Comply with Joint Code of Practice 'Fire Prevention on Construction Sites' published by the Building Employers Confederation and the Loss Prevention Council. Maintain fire escape routes.

Comply with the Employer's emergency procedures, fire precautions, fire alarm systems, means of escape and broadcast message system.

The Contractor must take all reasonable precautions to avoid the outbreak of fire, particularly in work involving the use of naked flames. Such work should be examined at short intervals following its completion.

The Contractor must draw the attention of all workpeople on the site to the dangers involved in the careless use of naked flames in proximity to combustible materials, disposal of matches, cigarettes, tobacco ash, etc. and of the accumulation of rubbish must be fully impressed on them.

Fire protection compartments must be maintained and fire escape routes must remain unobstructed and, where necessary illuminated. The Contractor must provide and maintain suitable fire extinguishers. A fire alarm system(s) must be maintained to the working areas by the Contractor at all times.

The attention of the Contractor is drawn to the current HMSO Publication 'Standard Fire Precautions P5 - to be taken by Contractors engaged on building and engineering works and maintenance for the Department of the Environment' and its recommendations where relevant to the Works.

Fire extinguishers and hydrants must not be obstructed and access to them must be maintained at all times.

MANAGEMENT OF FIRE PRECAUTIONS:

The Contractor shall appoint a site fire safety co-ordinator who will be responsible for all the fire precautions for the complete duration of the work.

The named person will normally be present on site until the work is completed and shall liaise with the Project Manager and PHE's Health and Safety Department.

WATER:

Prevent damage from storm and surface water.

MOISTURE:

Prevent the work from becoming wet or damp where this may cause damage.

Dry out the Works thoroughly. Control the drying out and humidity of the Works and the application of heat to prevent:

- Blistering and failure of adhesion.
- Damage due to trapped moisture.
- Excessive movement.

INFECTED TIMBER:

Where instructed to remove timber affected by fungal/insect attack from the building, do so in a way which will minimise the risk of infecting other parts of the building.

ELECTROMAGNETIC INTERFERENCE:

Take all necessary precautions to avoid excessive electromagnetic disturbance of apparatus, and seek clarity from the Employer of the sensitivity of equipment that may be affected by the Works.

LASER EQUIPMENT:

Install, use and store construction laser equipment in accordance with BS EN 60825-1 and the manufacturer's instructions.

PROTECT THE FOLLOWING:

WORK IN ALL SECTIONS:

Adequately protect all types of work and all parts of the Works, including work carried out by others, throughout the Contract.

Wherever work is of an especially vulnerable nature or is exposed to abnormal risks provide special protection to ensure that damage does not occur.

EXISTING SERVICES:

Notify all service authorities and/or adjacent owners of the proposed works not less than one week before commencing site operations.

Before starting work check and mark positions of existing mains/ services. Where positions are not shown on drawings obtain relevant details from service authorities or other owners.

Observe service authority's recommendations for work adjacent to existing services.

Adequately protect, and prevent damage to all services. Do not interfere with their operation without consent of the service authorities or other owners.

Identify below ground services with signboards, giving type and depth, and overhead services with headroom markers.

If any damage to services results from the execution of the Works, immediately notify the Project Manager and appropriate service authority.

Make arrangements for the work to be made good without delay to the satisfaction of the service authority or other owner as appropriate.

Any measures taken by the Project Manager to deal with an emergency will not affect the extent of the Contractor's liability.

Replace marker tapes or protective covers disturbed during site operations to the service authority's recommendations.

ROADS AND FOOTPATHS:

Adequately protect roads and footpaths within and adjacent to the site.

Any damage to roads and footpaths caused by site traffic or otherwise consequent upon the Works must be made good to the satisfaction of the Project Manager. The contractor is to bear any costs arising.

It is the responsibility of the contractor to obtain any necessary permits for road or footpath closures.

BUILDING INTERIORS:

Protect building interiors exposed to weather during the course of alteration work with temporary enclosures of sufficient size to permit execution of the work and which will remain weather tight in severe weather.

EXISTING WORK:

Prevent damage to existing property undergoing alteration or extension and make good to match existing any defects so caused.

Cut away and strip out the minimum necessary and with care to reduce the amount of making good to a minimum.

ADJOINING PROPERTY:

Prevent trespass of workpeople.

Take all reasonable precautions to prevent damage to adjoining property.

Obtain permission as necessary from the owners if requiring erecting scaffolding on or otherwise using adjoining property, and paying all charges.

Remove and make good on completion or when directed.

Bear the cost of repairing any damage arising from execution of the Works.

The Contractor shall ensure that the Project Manager is kept fully informed of any matters arising with respect to adjoining properties and neighbours and shall ideally be the point of contact between them and the Employer.

EXISTING STRUCTURES:

Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.

Provide and maintain during the execution of the Works all incidental shoring, strutting, needling and other supports as may be necessary to preserve the stability of existing structures on the site or adjoining, which may be endangered or affected by the Works.

Support existing structure as necessary during cutting of new openings or replacement of structural parts.

Monitor adjacent structures and immediately report excessive movement to the Project Manager.

Do not remove supports until new work is strong enough to support the existing structure. Prevent overstressing of completed work when removing supports.

RETAINED TREES/ SHRUBS/ GRASSED AREAS:

Protection:

Prevent damage and preserve, except those not required. Protect trees and roots with tree preservation orders as indicated on NPA’s drawings and specification.

Replacement:

Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

TREES TO BE RETAINED:

Unless agreed otherwise by the Project Manager, do not:

- Dump soil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within the branch spread.
- Sever roots exceeding 25mm in diameter. If unintentionally severed give notice and seek advice.
- Change level of ground within area 3m beyond the branch spread. Branches of existing trees which are likely to interfere with the execution of the works must be carefully tied back or with the prior written approval of the Project Manager removed by a specialist using sound arboricultural practice at the Contractor's expense.
- Any damage caused to trees must be immediately reported in writing to the Project Manager and any remedial treatment subsequently directed by the Project Manager, including replacement of the affected trees if necessary, must be carried out by a specialist, to sound arboricultural practice at the Contractor's expense.

TEMPORARY WORKS:

On completion of the Works, the Contractor must remove from the site all temporary works, plant, surplus materials etc., and make good any disturbance or damage including damage to the ground or structures, to the satisfaction of the Project Manager.

WI 230 PROTECTION OF THE WORKS

PROTECTION OF PRODUCTS:

Prevent over-stressing, distortion and any other type of physical damage.

Keep clean and free from contamination.

Prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work.

Keep dry and in a suitably low humidity atmosphere to prevent premature setting, moisture movement and similar defects.

Where appropriate store off the ground and allow free air movement around and between stored products.

Prevent excessively high or low temperatures and rapid changes of temperature in the products.

Protect adequately from rain, damp, frost, sun and other elements as appropriate.

Ensure that products are at a suitable temperature and moisture content at time of use.

Ensure that sheds and covers are of ample size, in good weatherproof condition and well secured.

Keep different types and grades of products separately and adequately identified.

So far as possible keep products in their original wrappings, packaging or containers, until immediately before they are used.

Wherever possible retain protective wrappings after fixing and until shortly before Practical Completion.

Ensure that protective measures are fully compatible with and not prejudicial to the products/materials.

STABILITY:

Accept responsibility for the stability and structural integrity of the Works during the Contract, and support as necessary. Prevent overloading: details of design loads may be obtained from the Project Manager.

WI 235 CLEANLINESS OF ROADS

ROADS AND FOOTPATHS:

Duty: Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.

WI 240 TRAFFIC/PEDESTRIAN MANAGEMENT

Any activities that will restrict access to the existing site roads will be identified in advance to the Project Manager.

A suitable method of controlling vehicular and pedestrian access will be developed and approved by the Project Manager.

It is essential that all vehicular and pedestrian access ways are kept clear at all times, owing to the restricted nature of the access, especially for emergency service vehicles. Special care must be exercised when traffic enters and leaves the site.

WI 245 CONDITION SURVEY

CONDITION SURVEY:

The Contractor shall provide a condition survey of the existing buildings and internal areas and surrounding roads, footpaths, fences and external areas etc.

Such survey shall be conducted with the Construction Manager and Project Manager prior to commencing work on site.

This should include all necessary photographs and video surveys as required, subject to express permission from the Project Manager and in accordance with WI 215.

The Contractor is to forward copies of the Condition Survey to the Project Manager.

The Contractor is responsible for making good any damage caused by him or his operatives.

WI 250 CONSIDERATION OF OTHERS

SURROUNDING LAND/BUILDING USES:

The adjacent areas are primarily used for research and storage purposes, with some used for administration functions, these will remain in constant use over the duration of the contract.

The contractor must ascertain for himself any information he may require to ensure the safety of all persons and the works.

Do not use the surrounding land or building(s) for any purpose other than carrying out the Works.

The Contractor's operations must be confined to within the boundaries of the site.

The Contractor shall not obstruct adjacent roads with plant, materials or unattended vehicles.

Nor shall the Contractor disrupt activities in the other adjacent buildings, except with prior agreement with PHE/Project Manager.

The Contractor must ensure that the works are carried out in such a manner as to ensure, as far as possible, that adjacent buildings are not interfered with.

Where such interference is unavoidable, the Contractor must inform the Project Manager, before taking any action, and will comply with such instructions issued in regard thereto by the Project Manager.

Once the timing of the works and the limits of the area have been agreed and defined they must be strictly adhered to.

If, for any reason, such adherence should become impossible, the Project Manager must be kept fully informed and additional instructions obtained and complied with.

WI 255 INDUSTRIAL RELATIONS

Not Applicable

WI 260 CONTROL OF SITE PERSONNEL

PERMIT TO WORK:

A Permit to Work (PTW) system is in operation across the PHE site for the following activities:

- 'S1' Permit prior to any works in, or associated with the laboratories and plant rooms.
- Hot Trades e.g. welding etc.
- Work in confined spaces
- Working with pressurised systems
- Electrical works
- Excavations
- Working on roof spaces (at height)
- Working in plantrooms controlled by PHE's Site Services Group (Emcor). (S1 Permit)

- Isolation of services certification

The Contractor's PTW procedures shall be reviewed and approved by the Project Manager regarding the application of PHE's PTW requirements prior to works commencing.

The Contractor is reminded that failure to comply with these procedures may result in suspension of the works in that area.

All time and costs incurred as a result of the suspension will be the responsibility of the Contractor for non-compliance with the Permit to Work protocol.

SUPERVISION:

In addition to the constant management and supervision of the works provided by the Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.

The Contractor is responsible for co-ordination, supervision and administration to provide the Works, including all subcontracts.

Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for the co-ordination of the work.

WI 265 SITE CLEANLINESS

CONTRACTORS WORK AREA:

The Contractor shall remove rubbish and debris as it arises and immediately on substantially completing shall clean the Works, including all surrounding areas, access ways and existing works affected by the alterations, internally and externally and leave for occupation to the satisfaction of the Project Manager

SURROUNDING AREAS:

The Contractor shall ensure that all surrounding areas are kept free from dirt and debris at all times.

WI 270 WASTE MATERIALS

WASTE:

The Contractor shall produce and issue to the Project Manager for approval a Site Waste Management Plan (SWMP) prior to Construction Works commencing.

The Contractor shall be responsible for:

- obtaining relevant information from sub-contractors
- updating the SWMP at least every three months as the project progresses
- keeping all legal documentation for the movement, treatment and disposal of waste within the SWMP
- keeping the SWMP on site during the project
- ensuring that other contractors know where the SWMP is kept
- allowing other contractors and the client access to the SWMP during the project
- handing the completed SWMP back to the client at the end of the project
- keeping a copy of the SWMP in accordance with legislation.

The Contractor will be expected to apply the waste hierarchy and must ensure that all waste contractors used have the relevant licences, permits and/or exemptions to produce, carry, keep, treat or dispose of all waste produced as part of the project. Information on how the Contractor will achieve these requirements and all documentation associated with the movement of waste must be included within the SWMP.

Contractors have a duty to comply with all applicable waste legislation. Contractors working at PHE Porton must take the waste they generate off-site with them or arrange for their own waste facilities to be brought to site. The delivery of contractors facilities must be agreed in advance with the Project Manager and the position on site agreed.

All waste stored on site must be appropriately segregated and securely stored to prevent contamination and litter.

All rubbish, dirt and residues must be removed from voids and cavities in the construction before closing in.

WI 275 DELETERIOUS AND HAZARDOUS MATERIALS

DELETERIOUS MATERIALS:

The Contractor shall not use or specify for use in the Works any Materials which contravene any British Standard Specification or Code of Practice or European Union Equivalent relevant at the date of specification or use which are generally known to be deleterious to health and safety and / or to the durability of the Works.

STORAGE AND USE OF HAZARDOUS MATERIALS:

The Contractor shall comply with the requirements of the COSHH regulations.

All data sheets and the register of substances shall be issued to the Project Manager prior to substances delivered to site.

The Contractor shall provide Risk Assessments and Method Statements for all work involving hazardous materials and ensure their operatives are fully trained in their use.

POLLUTION:

Take all reasonable precautions to prevent pollution of the site, the Works and the general environment including streams and waterways.

If pollution occurs, inform the appropriate Authorities and the Project Manager without delay and provide them with all relevant information.

USE OF PESTICIDES:

Use only where specified or approved by the Project Manager and then only suitable products as listed in the UK Pesticide Guide.

Where work is near water, drainage ditches or land drains, comply with the latest DEFRA ‘Guidelines for the use of herbicides on weeds in or near water courses and lakes’

Observe all precautions recommended by the manufacturer and remove containers from site immediately they have been emptied or are no longer required.

Operatives must hold a BASIS Certificate of Competence, or work under the supervision of a Certificate holder.

WI 300 CONTRACTOR’S DESIGN

WI 305 DESIGN RESPONSIBILITY

DESIGN AND PRODUCTION INFORMATION

The Contractor will thoroughly check on the basis of the information available, that dimensions are correct, that account is taken of all related work and that construction is practicable.

CONTRACTORS DESIGN/PERFORMANCE SPECIFIED WORK:

The Contractor shall submit all information in accordance with the Works Information.

The Contractor is responsible for the final design and detailing of all construction works, which include, but not limited to, the following:

- Modular structure
- Bottled medical gases
- All internal finishes
- Miscellaneous builders works and work to existing installations where specified within this schedule and associated documents
- Lightning protection
- Free-standing handrails
- Access stairs
- Rainwater drainage amendments and installations
- New M & E services

- HVAC

The contractor is required to provide the PM with detailed drawings for all of the above.

Such drawings shall be provided as paper and electronic copies

Where required complete the detailed design and the detailing of the work and provide complete production information (including, as appropriate, fabrication/installation drawings, design calculations, specifications, etc.) based on the drawings, specification and other Works Information provided liaising with the Project Manager and others as necessary to ensure co-ordination of the work with related building elements and services.

Request additional information as necessary from the Project Manager and provide information as necessary in time to meet the programme.

When preparing the programme make reasonable allowance for completing design/production information, inspection by the Supervisor, and any subsequent amendment(s), resubmission(s) and re-inspection(s).

Submit when required to the Project Manager the requested number of copies of design/production information.

Ensure that any necessary amendments are made without delay.

Unless and until the Project Manager confirms that resubmission is not required, submit copies of amended drawings etc. to Project Manager, and ensure incorporation of necessary amendments all as before.

If submitted design/production information differs from the contract documents, each such difference must be the subject of a request for substitution or change, supported by all relevant information.

Carefully check all manufacturers' drawings to ensure accuracy, completeness of the information and compliance with the Works Information.

Ensure that any amendments necessary to manufacturer's drawings are made prior to submission of the drawing for review by the Project Manager.

The Contractor will be responsible for the production of shop drawings/ workings/ fabrications for each element of work within the contract.

He will be responsible for the accuracy of these drawings and for the equipment shown thereon being suitable for the purpose for which it is intended and in accordance with the Works Information.

Production information must include:

- Builder's work information
- Installation drawings
- Shop drawings
- Equipment drawings
- As built drawings
- All other information listed in the specifications

Maintain on site, for regular inspection by the Project Manager and Supervisor, one set of drawings showing the progress of the work, with all modifications or revisions clearly indicated.

The drawn and other information must comply with standards agreed in advance with the Employer in respect of:

- Scales
- Notation
- Registration system

It is the Contractor's responsibility to confirm and amplify any information provided by the Employer.

CONTRACTOR'S CO-ORDINATION

The Contractor shall be responsible for detailed coordination of the works.

The Contractor will be responsible for establishing target dates for provision of construction information, samples, any necessary approvals and installation start dates, advising on timescales for production of maintenance information and manuals monitoring programmes, modifying and updating details to reflect commissioning results; assisting the Employer in developing an operating and maintenance strategy, making recommendations for commencing and executing maintenance during the defects correction period, providing as built drawings and information and ensuring such are updated to cover all alterations to the installations.

PRODUCT GUARANTEES:

The Contractor is to provide all product guarantees as applicable to the equipment and materials as installed as part of the project.

TECHNICAL LITERATURE:

The Contractor is to keep copies of the following on site, readily accessible for reference by all supervisory personnel:

- Manufacturers' current literature relating to all products to be used in the Works.
- BSI Handbook No.3, with all current revision sheets included and superseded sheets removed.
- Relevant BS Codes of Practice.
- Those parts of BS.80000 ‘Workmanship on building sites’ which are invoked in the specification.

MAINTENANCE INSTRUCTIONS AND GUARANTEES:

Retain copies delivered with components and equipment (failing which, obtain), register with manufacturer as necessary and hand over to the Project Manager on or before the Completion Date.

Notify the Project Manager of telephone numbers for emergency services by Subcontractors after the Completion Date.

The Contractor will keep one complete set of the Contract Drawings, and one copy of the Drawings referred to in the Contract, Contract Data, Works Information, Site Information, schedules, Shop Drawings or other like documents at the Site in good order available to the Employer, Project Manager and the Supervisor.

Such documents will be kept up-to-date by replacing obsolete sheets with revised sheets as they are prepared.

WI 310 DESIGN SUBMISSION PROCEDURES

DRAWING/DOCUMENT ACCEPTANCE

Drawings/documents are to be submitted to the Project Manager for acceptance.

The Contractor is responsible for ensuring conformity with the scope and standards within the Works Information.

Acceptance will not be construed to mean that the Project Manager accepts the detailed design inherent in the drawings/documents, responsibility for which will remain with the Contractor.

The Contractor is responsible for any errors or omissions in the drawings/documents.

The Project Manager will confirm acceptance or otherwise of the drawings/documents within 10 working days of receipt.

Any comments must be incorporated and resubmitted within 5 working days of receipt, following which acceptance will be confirmed or otherwise within a further 5 working days.

The acceptance of design proposals will not relieve the Contractor of his responsibilities for design under the contract.

WI 320 EMPLOYER’S REQUIREMENTS

DEFINITIONS AND INTERPRETATIONS

DEFINITIONS:

The meaning of terms, derived terms and synonyms used in the preliminaries/general conditions and specification is as defined below or in the appropriate British Standard or British Standard glossary.

PM means the Project Manager.

IN WRITING: When required to advise, notify, inform, instruct, agree, confirm, obtain information, obtain approval or obtain instructions do so in writing.

APPROVAL (and words derived there from) means the approval in writing of the PM unless specified otherwise.

SUBMIT (and words derived there from) means to the PM unless otherwise instructed.

PRODUCTS means materials (including naturally occurring materials) and goods (including components, equipment and accessories) intended for permanent incorporation in the Works.

ALTERNATIVE MANUFACTURERS/SUPPLIERS of mechanical and electrical plant and materials: Where the specification permits selection of an alternative manufacturer/supplier for mechanical and electrical plant and materials, those highlighted in bold indicate the manufacturer/suppliers upon which the M&E design and specification has been based.

Where selection of one of the alternatives is desired, the Contractor shall satisfy themselves that the alternative product is fully equivalent in all respects including quality, operation, space requirements, safety, reliability, function, compatibility with adjacent construction, and, where relevant, appearance and shall make full allowance for any necessary modifications to the design to accommodate the alternative product, including such modifications to the structure and fabric of the building.

CROSS-REFERENCES TO THE SPECIFICATION:

Where a numerical cross-reference to a specification section or clause is given on drawings or in any other document the Contractor must verify its accuracy by checking the remainder of the annotation or item description against the terminology used in the referred to section or clause.

Where a numerical cross-reference is not given the relevant section(s) and clause(s) of the specification will apply, cross-reference thereto being by means of related terminology.

Where a cross-reference for a particular type of work, feature, material or product is given, relevant clause(s) elsewhere in the referred to specification section dealing with general matters, ancillary products and workmanship also apply.

The Contractor must, before proceeding, obtain clarification or instructions in relation to any discrepancy or ambiguity which may be discovered.

REFERENCED DOCUMENTS:

Where and to the extent that this specification conflicts with referenced documents, this specification prevails.

EQUIVALENT PRODUCTS:

Where the specification permits substitution of a product of different manufacture to that specified and such substitution is desired, the Contractor will request the consent of the Project Manager for such substitution and before ordering the product notify the Project Manager and when requested submit documentary evidence that the alternative product is equivalent in all respects including materials safety, reliability, function, compatibility with adjacent construction, availability of compatible accessories and, where relevant, appearance. Submit certified English translations of any foreign language documents.

Any such request must be submitted sufficiently in advance (and in any event a minimum of 20 working days ahead) of the date for order required by the Contractor's programme so as to allow adequate time for the Project Manager to properly appraise the information submitted and make all checks and consultations as may be necessary prior to sanction of the substitution.

If the substitution is not deemed to be equivalent by the Project Manager following review of the information submitted it will not be sanctioned and the specified product will be used.

Any proposal for use of an alternative product must also include proposals for substitution of compatible accessory products and variation of details as necessary, with evidence of equivalent durability, function and appearance of the construction as a whole.

If such substitution is sanctioned and before ordering products provide revised drawings, specification and manufacturer's guarantees as required by the Project Manager.

SUBSTITUTION OF STANDARDS:

Where any product is specified to comply with a British Standard for which there is no equivalent European Standard it may be substituted by a product complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK specifying equivalent requirements and assurances in respect of material, safety, reliability, function, compatibility with adjacent construction, availability of compatible accessories and, where relevant, appearance. In advance of ordering submit notification of all such substitutions and, when requested, submit for verification documentary evidence confirming that the products comply with the specified requirements.

Any submitted foreign language documents must be accompanied by certified translations into English.

CURRENCY OF DOCUMENTS:

References to standards, type approval certificates, catalogues, codes of practice and the like are to the editions, revisions, versions and amendments current at the time of tender.

References to BSI documents are to the versions and amendments listed in the BSI Standards Catalogue, including updates, current at the time of tender.

MANUFACTURER AND REFERENCE:

Where used in this combination:

'Manufacturer' means:

- The firm under whose name the particular product is marketed.

'Reference' means:

- The proprietary brand name and/or reference by which the particular product is identified.

SIZES:

Unless otherwise stated:

- Products are specified by their co-ordinating sizes.
- Cross section dimensions of timber shown on drawings are nominal sizes before any required planning.

PROVIDE means: providing, erecting, maintaining, adapting, clearing away and making good any disturbance or damage including damage to ground or structures to the entire satisfaction of the Project Manager.

FIX ONLY means all labours in unloading, handling, storing and fixing in position, including use of all plant.

SUPPLY AND FIX:

Unless stated otherwise all items given in the schedule of work and/or on the drawings are to be supplied and fixed complete.

TERMS USED IN REFURBISHMENT/ALTERATION

REMOVE means:

- Disconnect, dismantle as necessary and remove the stated element, work or component and all associated accessories, fastenings, supports, linings and bedding materials, and dispose of unwanted materials.

It does include:

- Removing associated pipework, wiring, ducting or other services.

KEEP FOR REUSE means:

- During removal prevent damage to the stated components or materials, and clean off bedding and jointing materials.
- Stack neatly, adequately protect and store until required by the Employer or for use in the Works as instructed.

REPLACE means:

- Remove the stated existing components, features and finishes.

- Provide and fit in lieu new components, features or finished which, unless specified otherwise, must match those which have been removed.
- Make good as necessary.

REPAIR means:

- Carry out local remedial work to components, features and finishes as found in the existing building.
- Re-secure or re-fix as necessary and leave in sound and neat condition.

It does not include:

- Replacement of components or parts of components.
- Redecoration.

MAKE GOOD means carry out local remedial work to components, features and finishes which have been disturbed by other, previous work under this Contract and leave in a sound and neat condition.

It does not include:

- Replacement of components or parts of components.
- Redecoration.

The meaning of the term shall not be limited by this definition where used in connection with the defects liability provisions of the Contract.

EASE means make minor adjustments to moving parts of the stated component to achieve good fit in both open and closed positions and ensure free movement in relation to fixed surrounds. Make good as necessary.

TO MATCH EXISTING means use products, materials and methods to match closely all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval of appearance.

DOCUMENTS PROVIDED ON BEHALF OF THE EMPLOYER

OMISSIONS OR ERRORS in the Specification and/or Drawings shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

ADDITIONAL COPIES OF THE DRAWINGS/ DOCUMENTS:

The Contractor is to allow for undertaking the copying of all drawings and specifications required.

THE SPECIFICATION/DRAWINGS:

The accuracy of dimensions scaled from the drawings is not guaranteed.

Obtain from the Employer any dimensions required but not given in figures on the drawings nor calculable from figures on the drawings.

All sections of the specification must be read in conjunction with the Contract Data, Works Information and Site Information.

WI 330 REQUIREMENTS OF OTHERS

Statutory authorities:

If necessary, the Contractor is responsible for compliance with the planning conditions and for taking any measures necessary to obtain their full discharge by the planning authority. The Employer is responsible for the payment of the planning fees.

If necessary, the Contractor must ascertain from all relevant Statutory Authorities what requirements or restrictions, if any, shall apply to the Works. The restrictions may relate to the type of plant to be used, the methods of working to be adopted, the hours of working permissible and may in addition impose a maximum noise level limit at the site boundary.

WI 335 COPYRIGHT/LICENCE

COPYRIGHT/Licence:

The Contractor grants to the Employer, with immediate effect, an irrevocable, non-exclusive, non-terminable, royalty-free licence to copy and make full use of any Design Material prepared by, or on behalf of, the Contractor for any purpose relating to the Works

This licence allows the Beneficiary to use the Design Material in connection with any extension of the Works, but not to reproduce the designs contained in the Material in any such extension.

This licence carries the right to grant sub-licences and is transferable to third parties without the consent of the Contractor.

The Contractor shall not be liable for use of the Design Material for any purpose other than that for which it was prepared and/or provided.

The Employer may request a copy (or copies) of some or all of the Design Material from the Contractor.

On the Employers payment of the Contractor's reasonable charges for providing the copy (or copies), the Contractor shall provide the copy (or copies) to the Employer.

DEFINITION:

Design Material:

All designs, drawings, models, plans, specifications, design details, photographs, brochures, reports, notes of meetings, CAD materials, calculations, schedules, programmes, bills of quantities, budgets and any other materials provided in connection with the Works and all updates, amendments, additions and revisions to them and any works, designs, or inventions incorporated or referred to in them for any purpose relating to the Works.

Permitted Uses:

The design, construction, completion, reconstruction, modification, refurbishment, development, maintenance, funding, disposal, letting, fitting-out, advertisement, demolition, reinstatement, [extension] and repair of the Property and the Works.

WI 340 ACCESS TO INFORMATION FOLLOWING COMPLETION

The Contractor retains all documents relating to the design of the Works and Services for a period of no less than 12 years after Completion and upon written request from the Employer shall provide the Employer copies of such documents provided that if this request is made after the issue of the Defects certificate, the Employer pays the Contractor a defined cost and fee for providing such documents.

WI 400 COMPLETION

WI 405 COMPLETION DEFINITION

COMPLETION:

Upon completion, allow to professionally clean all surfaces (including access routes) affected by the works on completion using suitable cleaning products, all to the satisfaction of the PM.

At the end of the works the Contractor must make adequate allowance within the programme for the completion of all snagging works. These elements of work must be clearly shown on the Contractors programme.

Where the demise is considered unworthy of Practical Completion at that time, the contractor will be charged for the Project Manager’s/ Employer's additional time for each subsequent site inspection at

£500 per visit including administration over and above any claim for liquidated damages which may arise under the contract.

Completion shall be certified by the Project Manager only when the Contractor has provided all the Works as stated in the Works Information including all equipment Site Acceptance Tests as applicable and undertaken all Validation activities as specified to the satisfaction of the Project Manager.

OPERATION AND MAINTENANCE MANUALS:

As a condition precedent to certification of overall Completion, supply the Project Manager with the completed O&M manuals in the format as described within the Works Information

WI 410 SECTIONAL COMPLETION DEFINITION

No sectional completion is envisaged

WI 415 TRAINING

TRAINING OF EMPLOYER'S STAFF:

Engineering training only

WI 420 FINAL CLEAN

On completion of the Works and prior to hand over the Contractor shall thoroughly clean all areas after removal of all equipment, tools, temporary works, materials, protective coverings leaving the Works in a condition acceptable to the Project Manager.

Cleaning materials and methods to be as recommended by manufacturers of products being cleaned, and to be such that there is no damage or disfigurement to other materials or construction.

Obtain COSHH dated data sheets for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.

WI 425 SECURITY

SECURITY AT COMPLETION:

Leave the Works secure with all accesses locked. Account for and adequately label all keys and hand over to Project Manager with itemised schedule, retaining duplicate schedule signed by Project Manageras a receipt.

WI 430 CORRECTING DEFECTS

MAKING GOOD DEFECTS:

Make arrangements with the Project Manager and give reasonable notice of the precise dates for access to the various parts of the Works for purposes of making good defects. Inform the Project Manager when remedial works to the various parts of the Works are completed.

WI 435 PRE-COMPLETION ARRANGEMENTS

WORK AT OR AFTER COMPLETION

GENERALLY:

Make good all damage consequent upon the work.

Touch up minor faults in newly painted/repainted work, carefully matching colour, and brushing out edges.

Repaint badly marked areas back to suitable breaks or junctions

EMERGENCY CONTACT NUMBERS:

Notify Project Manager of telephone numbers for emergency services by Sub-contractors after the Completion Date.

WI 440 HEALTH AND SAFETY FILE

See Pre Construction Information for the requirements of the Health And Safety File

THE BUILDING MANUAL:

The Building Manual (incorporating the Health and Safety File and subtitled accordingly) is to be a comprehensive information source and guide for the Employer and end users providing a complete understanding of the building and its systems and enabling it to be operated and maintained efficiently

and safely. The Contractor is required to obtain or prepare all the information to be included in the Manual, produce the required number of copies of the Manual and submit them to the Review Panel

The Building Manual incorporates the documents listed below and any reference to 'The Building Manual' shall mean the whole document.

- Master Control Manual
- Health & Safety File,
- Operation & Maintenance Manuals

BUILDING LOG-BOOK:

A Building Log-Book is already in place for the building

PRESENTATION OF BUILDING MANUAL:

Format: A4 size, plastics covered, loose leaf, four-ring binders with hard covers, each indexed, divided and appropriately cover titled.

The Employer also requires an electronic version of all Building Manual documents including all drawings etc., note, original copies of test and commissioning certificates are required in the paper version.

Selected drawings needed to illustrate or locate items mentioned in the Manual:

Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.

As-built drawings: The main sets may form annexes to the Manual.

WI 500 PROGRAMME

WI 505 PROGRAMME REQUIREMENTS

The Contractor shall familiarise himself with the contents of the URS, Scope of Work and Works Information and allow for any float time, time risk allowances as appropriate in accordance with the Contract.

The Contractor shall identify the following additional specific information on each issue of the programme:

- Design delivery dates
- Sectional works completion dates
- Employer approval periods in accordance with the timescales of the Contract
- Date for submission of the draft Health & Safety File
- Date for submission of the final Health & Safety File

The Critical path activities shall be clearly marked.

WI 510 PROGRAMME ARRANGEMENT

Submit two paper copies and one electronic copy (MS Project 2013 format and PDF in format, showing all required information in accordance with the Contract) to the Project Manager.

WI 515 METHODOLOGY STATEMENT

The contractor's attention is drawn to the following programme constraints.

- No weekend working except by arrangement only
- No Bank Holiday working except by arrangement only.

The Contractor is to programme/cost for any noisy works that would affect the usual occupation of the other users, which must be undertaken outside of normal working hours. Noise levels must be in accordance with Local Authority regulations. The Project Manager must be made aware of any noisy works in advance.

The contractor is to appoint a fully qualified and competent site manager who shall be responsible for all works under the contract and will liaise with the Project Manager on all matters arising out of the works. The contractor must provide proof of their competence, experience and training prior to

commencement. The site manager is to be identified within the submitted tender package. The contractor is to ensure that the site manager is in attendance at all times. No trades or works are to be undertaken without the site manager being in attendance. The manager shall be available to attend periodic inspections and valuations by the PM, and shall not be a working foreman.

Allow to submit a progress report to the PM on a bi-weekly basis to update on progress, programme and issues on site. The format is to be submitted by the contractor for approval.

The contractor shall allow for providing all necessary plant and equipment to carry out the works to the satisfaction of the PM. This is to involve all necessary internal and external temporary lighting in order for the works to be safely undertaken, Health and Safety signage, PPE and the like.

Hours of working permitted under this contract are set out below:

Monday - Friday: 07.30am to 5.00pm

Saturday - Sunday and Bank Holidays: By arrangement only

Normal working hours can only be extended by prior agreement with PM and site security. Sufficient advance request of out of hours works must be provided and approved before commencement.

The contractor is to ensure that the site is left in a safe, clear, clean and tidy condition at the end of each working day, suitable for occupation by the employer's staff. The contractor is to provide a method statement as to how this is to be achieved with their tender submission.

The contractor shall erect, maintain and subsequently strike all necessary access platforms, ladders etc. as necessary to enable the proper and safe execution of the works.

WI 520 WORK OF THE EMPLOYER AND OTHERS

There is a requirement to install caging during the course of the project the contractor is expected to liaise to ensure the containment system aligns with the caging and the structure no works carried out by others envisaged for the project

WI 525 INFORMATION REQUIRED

The Contractor shall produce a separate schedule detailing the information to be provided / required by to complete the Works. The document shall state who it shall be provided by and to whom as well as the anticipated dates and durations for review in order to maintain the critical path of the Works.

WI 530 REVISED PROGRAMME

RECORD PROGRESS:

Record progress on a copy of the programme kept on site. If any circumstances arise which may affect the progress of the Works, put forward proposals or take other action as appropriate to minimise any delay and to recover any lost time.

All revised programmes issued for acceptance must be accompanied by a narrative identifying the Critical Path operations and schedule the changes since the last programme.

Any programme issued to the Project Manager shall be rescheduled to indicate any revised completion date and include any Compensation Events implications.

WI 600 QUALITY ASSURANCE

WI 605 SAMPLES

SAMPLES/APPROVALS

SAMPLES:

Where samples of finished work are specified, or required to obtain statutory consent, obtain approval of stated characteristic(s) before proceeding with the works.

Retain approved samples in good, clean condition on site for comparison with the works.

Remove samples which are not part of the finished works when no longer required.

The Contractor is required to provide the samples identified within the Works Information.

APPROVAL OF PRODUCTS:

Where approval of a product is specified the requirement for approval relates to a sample of the product and not to the product as used in the Works.

Submit a sample or other evidence of suitability.

Do not confirm orders or use the product until approval of the sample has been obtained.

Retain approved sample in good, clean condition on site.

Ensure that the product used in the Works matches the approved sample.

Remove when no longer required.

SAMPLES OF FINISHED WORK:

Where a sample of finished work is specified for approval, the requirement for approval relates to the sample itself (if approval of the finished work as a whole is required this is specified separately).

Obtain approval of the stated characteristic(s) of the sample before proceeding with the Works.

Retain approved samples in good, clean condition on site.

Ensure that the relevant characteristic(s) of the Works match the approved characteristic(s) of the sample.

Remove samples which are not part of the finished Works when no longer required.

The Contractor is required to provide the samples identified within the Specifications in and as required to discharge the planning conditions.

APPROVALS:

Where and to the extent that products or work are specified to be approved or the Project Manager instructs or requires that they are to be approved, the same must be supplied and executed to comply with all other requirements and in respect of the stated or implied characteristics either:

- To the express approval of the Project Manager or
- To match a sample expressly approved by the Project Manager as a standard for the purpose. The

Supervisor will confirm acceptance or otherwise of the samples within 10 working days of receipt.

Any comments must be incorporated and resubmitted within 5 working days of receipt, following which acceptance will be confirmed or otherwise within a further 5 working days.

Inspection or any other action by the Project Manager must not be taken as approval of products or work unless the Project Manager so confirms in writing in express terms referring to:

- Date of inspection
- Part of the work inspected
- Respects or characteristics which are approved
- Extent and purpose of the approval
- Any associated conditions.

WI 610 QUALITY STATEMENT

The Contractor shall provide a quality statement setting out their proposals for covering the following aspects:

- Management and resources proposed to ensure compliance with the Works Information.
- Samples of plant materials and workmanship
- Acceptance of Goods
- Compliance with recognised good practice applicable to the scope of works identified within the Works Information
- Ordering and supply of Goods
- Handling / Storage
- Management of Sub Contractors and Suppliers

WI 615 QUALITY MANAGEMENT SYSTEM

The Contractor shall operate a quality management system which complies with the relevant parts of BS EN ISO 9001 and 9002 and has a third party certification from an approved accreditation body. Prior to the Starting date the Contractor prepares a quality plan and submits it to the Project Manager for acceptance. The quality plan incorporates:

- The Quality Statement
- Details of the Contractors Quality Management Systems
- Quality requirements stated in the Works Information

Any Sub Contractor / Supplier appointed by the Contractor will operate a quality system enabling them to comply with the Contractors quality management system.

WI 620 QUALITY AUDITS

The Contractor and subcontractors may be subject to Audits carried out by the Employer.

The Contract will be placed subject to the successful completion of these audits**.**

WI 625 MATERIALS AND WORK GENERALLY

GOOD PRACTICE:

Where and to the extent that equipment, plant, materials, products and workmanship are not fully detailed or specified they are to be:

- Of a standard appropriate to the Works and suitable for the functions stated in or reasonably to be inferred from the project documents, and
- In accordance with relevant good building practice.

GENERAL QUALITY OF PRODUCTS:

Products to be new unless otherwise specified.

For products specified to a British or European Standard obtain certificates of compliance from manufacturers when requested by the Project Manager.

Where a choice of manufacturer or source of supply is allowed for any particular product, the whole quantity required to complete the work must be of the same type, manufacture and/or source unless otherwise approved.

Produce written evidence of sources of supply when requested by the Project Manager.

Ensure that the whole quantity of each product required to complete the work is of consistent kind, size, quality and overall appearance.

Where consistency of appearance is desirable ensure consistency of supply from the same source.

Unless otherwise approved do not use different colour batches where they can be seen together.

If products are prone to deterioration or have a limited shelf life, order in suitable quantities to a programme and use in appropriate sequence. Do not use if there are any signs of deterioration, setting or other unsatisfactory condition.

PROPRIETARY PRODUCTS:

Handle, store, prepare and use or fix each product in accordance with its manufacturer's current printed or written recommendations/instructions. Inform the Project Manager if these conflict with any other specified requirement. Submit copies to the Project Manager when requested.

Ancillary products and accessories to be of a type recommended by the main product manufacturer, unless otherwise specified.

The contract will be deemed to be based on the products specified and recommendations on their use as described in the manufacturer's literature current the time of tender.

Obtain confirmation from manufacturers that the products specified and recommendations on their use have not been changed since that time. Where such change has occurred, inform the Project Manager and do not place orders for or use the affected products without further instructions.

Where British Board of Agrément certified products are used, comply with the limitations, recommendations and requirements of the relevant valid certificates.

CHECKING COMPLIANCE OF PRODUCTS/MATERIALS:

Check all delivery tickets, labels, identification marks and, where appropriate, the products themselves to ensure that all products comply with the project documents. Where different types of any product are specified, check to ensure that the correct type is being used in each location. In particular, check that:

- The sources, types, qualities, finishes and colours are correct, and match any approved samples.
- All accessories and fixings which should be supplied with the goods have been supplied.
- Sizes and dimensions are correct. Where tolerances of components are critical, measure a sufficient quantity to ensure compliance.
- The delivered quantities are correct, to ensure that shortages do not cause delays in the work.
- The products are clean, undamaged and otherwise in good condition.
- Any products which have a limited shelf life are not out of date.

SUITABILITY OF RELATED WORK AND CONDITIONS:

Ensure that all trades are provided with necessary details of related types of work. Before starting each new type or section of work, ensure that:

- Previous, related work is appropriately complete, in accordance with the project documents, to a suitable standard and in a suitable condition to receive the new work.
- All necessary preparatory work has been carried out, including provision for services, openings, supports, fixings, damp proofing, priming and sealing.
- The environmental conditions are suitable, particularly that the building is suitably weather tight when internal components, services and finishes are installed.

Protection measures to sensitive and specialist equipment are to be agreed with the Project Manager,

GENERAL QUALITY OF WORKMANSHIP:

Operatives must be appropriately skilled and experienced for the type and quality of work.

Take all necessary precautions to prevent damage to the work from frost, rain and other hazards.

Inspect components and products carefully before fixing or using and reject any which are defective.

Fix or lay securely, accurately and in alignment.

Where not specified otherwise, select fixing and jointing methods and types, sizes and spacings of fastenings in compliance with section Z20. Fastenings to comply with relevant British Standards.

Provide suitable, tight packings at screwed and bolted fixing points to take up tolerances and prevent distortion.

Do not over tighten fixings.

Adjust location and fixing of components and products so that joints which are to be finished with mortar or sealant or otherwise left open to view are even and regular.

Ensure that all moving parts operate properly and freely.

Do not cut, grind or plane prefinished components and products to remedy binding or poor fit without approval.

ACCURACY/SETTING OUT GENERALLY

ACCURACY OF INSTRUMENTS:

Use instruments and methods described in BS 5606 to give accuracy in measurement.

SETTING OUT:

Submit details of methods and equipment to be used in setting out the Works.

Check the levels and dimensions of the site against those shown on the drawings, and record the results on a copy of the drawings.

Notify Project Manager in writing of any discrepancies and obtain instructions before proceeding.

Inform Project Manager when overall setting out is complete and before commencing construction.

APPEARANCE AND FIT:

Arrange the setting out, erection, juxtaposition of components and application of finishes (working within the practical limits of the design and the specification) to ensure that there is satisfactory fit at junctions, that there are no practically or visually unacceptable changes in plane, line or level and that the finished work has a true and regular appearance.

Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve, obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.

Without prejudice to the above and unless specified otherwise, tolerances will (where applicable) be not greater than those given in BS 5606, Tables 1 and 2.

CRITICAL DIMENSIONS:

Certain dimensions on the following drawings are noted as 'critical'; set out and construct the works to ensure compliance with the tolerances stated on the drawings.

DIMENSIONING:

The Contractor shall be responsible for the co-ordination and precise location of terminals, outlets, drainage points and fittings where not dimensioned on the drawings and schedules and shall mark them out for approval by the Project Manager prior to chasing/installation.

LEVELS OF STRUCTURAL FLOORS:

Maximum tolerances will be as stated in the appropriate specifications or maximum tolerances for designed levels.

SERVICES GENERALLY

SERVICE RUNS:

Make adequate provision for services, including unobstructed routes and fixings. Wherever possible ducts, chases and holes are to be formed during construction rather than cut.

WATER FOR THE WORKS:

Clean and uncontaminated. If other than mains supply is proposed provide evidence of suitability. Test to BS 3148 if instructed.

WI 700 TESTS AND INSPECTIONS

WI 705 TESTS AND INSPECTIONS

TEST AND INSPECTION REQUIREMENTS ARE DEFINED WITHIN THE SCOPE OF WORKS

TESTING:

Pipework and ductwork shall be pressure tested and witnessed by the client.

Fail safe testing will be required and witnessed by the client

ACCESS FOR INSPECTION:

Give the Supervisor not less than 5 working days' notice before removing scaffolding or other facilities for access.

PROPOSALS FOR RECTIFICATION OF DEFECTIVE WORK/PRODUCTS:

Defects in construction are to be reported to the Supervisor without delay.

Obtain instructions before proceeding with work which may:

- Cover up or otherwise hinder access to the defective construction, or
- Be rendered abortive by the carrying out of remedial work.

As soon as possible after any part(s) of the work or any products are known to be not in accordance with the Contract or appear that they may not be in accordance, then the Contractor or Supervisor may submit proposals to the other for opening up, inspection, testing, making good, or removal and re-execution.

Such proposals may be unacceptable to the Supervisor and he may issue other instructions.

MEASURES TO ESTABLISH ACCEPTABILITY:

Wherever inspection or testing shows that the work, materials or goods are not in accordance with the Contract and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures:

- will be at the expense of the Contractor
- will not be considered as grounds for extension of time.

QUALITY CONTROL:

Establish and maintain procedures to ensure that the Works, including the work of all subcontractors, comply with specified requirements.

Maintain full records, keep copies on site for inspection by the Project Manager, and submit copies of particular parts of the records on request. The records must include:

- Identification of the element, item, batch or lot including location in the Works.
- The nature and dates of inspections by the Contractor or the Project Manager, tests and approvals.
- The nature and extent of any nonconforming work found.
- Details of any corrective action.

WI 707 VALIDATION (NOT APPLICABLE TO THIS TENDER)

No Validation of any of the equipment / installation is required. All validation work will be carried out by others

WI 710 MANAGEMENT OF TESTS AND INSPECTIONS

The Contractor shall provide a test and inspection plan as part of their quality management system, detailing how the Contractor will control the Works and Equipment in line with any test and inspection schedule. This plan must be approved by the Project Manager.

The Test and Inspection Plan must include:

- Procedures and method statements etc. needed to carry out the work
- Acceptance standards such as specifications, national standards and legislation
- Requirements for samples, benchmarks, trials and prototypes.
- Records and other deliverables generated as part of any test process.
- Who is responsible for the implementing the planned arrangements
- Who is responsible for certifying that compliance with the requirements has been achieved

WI 720 SUPERVISOR'S PROCEDURES FOR INSPECTIONS AND WATCHING TESTS

TIMING OF TESTS AND INSPECTIONS:

The Contractor will ensure that tests and inspections are carried out before doing any work which would obstruct the test or inspection and in any event the Contractor will give the Supervisor 14 day's prior notice to allow the Supervisor to be present. On the day before the test or inspection is due to be carried out the Contractor will advise the Supervisor whether or not the work or samples will be ready.

If the work or samples will not be ready the Contractor will arrange a new time and date for the testing or inspection to be carried out. The Contractor will notify the Supervisor of the results of all tests and inspections.

TEST CERTIFICATES:

Submit a copy of each certificate to Supervisor as soon as practicable and keep copies of all certificates on site.

WI 800 MANAGEMENT OF THE WORKS

DOCUMENTS:

The Contractor is required to keep copies of the following on the Site, readily accessible for reference by the Project Manager and Supervisor:

- Manufacturers' current literature relating to all products to be used in the Works.
- Relevant BS Codes of Practice.
- Those parts of BS.8000 'Workmanship on building sites' which are invoked in the specification.
- Completed Site Waste Management Plan.

Retain copies of maintenance instructions and guarantees delivered with components and equipment (failing which, obtain), register with manufacturer as necessary and hand over to the CDM Coordinator on or before the Completion Date.

SUPERVISOR (CONSTRUCTION MANAGER):

The Employer will appoint a general Supervisor (Clerk of Works) to monitor the Contractors activities on site and adherence to design drawings and specifications. This general role may be supported where required by discipline specific supervisors employed by PHE.

WI 805 PROJECT TEAM – OTHERS

DESIGNERS:

Contractor design

PRINCIPAL DESIGNER FOR CDM:

Contractor

QUANTITY SURVEYOR:

PHE

WI 810 COMMUNICATIONS

CONTRACTOR'S SITE MEETINGS:

The Contractor must hold such regular site meetings as are necessary for the proper management and co-ordination of the Contract. The Contractor must arrange for representatives of sub-contractors to attend when necessary and allow for all expenses of his own attendance and provision of suitable accommodation. The Contractor will be responsible for the production and circulation of agendas, minutes of meetings. Minutes to be circulated within 48hrs of meeting.

PM'S EARLY WARNING MEETINGS:

The Project Manager will hold Early Warning meetings to review progress and other matters. Meetings will normally be held every two weeks.

Ensure the availability of accommodation and attend all such meetings. The Contractor's senior representatives shall attend all meetings to report on progress, contract and all other matters.

The Project Manager will chair the meetings and take and distribute minutes.

CONTRACTOR'S PROGRESS REPORT:

The Contractor shall submit a progress report to the Project Manager two days prior to each site meeting. Notwithstanding the Contractor's obligations under the Contract the report must include:

- A progress statement by reference to the master programme for the works
- Details of any matters materially affecting the regular progress of the Works
- Any requirements for further drawings or details or instructions to enable the Project Manager to fulfil his obligations under the Conditions of Contract.
- Health and Safety Issues.

WI 900 WORKING WITH THE EMPLOYER AND OTHERS

WI 905 SHARING THE WORKING AREAS WITH THE EMPLOYER AND OTHERS

WORKS BY OTHERS:

The Contractor must liaise with the PMC Facilities Services for the following services currently maintained by them:

Access Control

Fire Alarm

Security

Utilities

GENERALLY:

The Contractor will co-ordinate the works to incorporate the above direct contractor's works and the Contractor will include for the following co-ordination and attendance items:

(i) Arrange and co-ordinate programme dates with the Project Manager.

(ii) Meet with the Project Manager to agree detail of working practices while both parties are on site.

(iii) Whilst each direct contractor is on site the following factors will need to be allowed for:

- Ready access will be required to the direct contractor's defined working areas
- Deliverance of materials to the working areas will need to be co-ordinated
- Temporary electrical power will be required
- Permanent services will be provided to allow for commissioning
- Secure weatherproof site storage
- Access to welfare facilities
- Use of Contractor's access scaffolding if available.

WI 920 AUTHORITIES AND UTILITIES PROVIDERS

SERVICES REGULATIONS:

Any work carried out to or which affects new or existing services must be in accordance with the Bye Laws or Regulations of the relevant Statutory Authority.

WATER REGULATIONS/BYELAWS NOTIFICATION:

Notify Water Undertaker or any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.

Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

WATER REGULATIONS/BYELAWS CONTRACTOR'S CERTIFICATE:

On completion of the work, submit to the Project Manager (and where required also to the Water Undertaker) a certificate including:

- The address of the premises.
- A brief description of the new installation and/or work carried out to an existing installation.
- The Contractor's name and address.
- A statement that the installation complies with the relevant Water Regulations or Byelaws.
- The name and signature of the individual responsible for checking compliance.
- The date on which the installation was checked.

WI 1000 SERVICES AND OTHER THINGS TO BE PROVIDED

WI 1005 SERVICES AND OTHER THINGS FOR THE USE OF THE EMPLOYER, PROJECT MANAGER OR OTHERS TO BE PROVIDED BY THE CONTRACTOR

GENERALLY

LOCATIONS:

Inform the Project Manager of the intended siting of all spoil heaps, temporary works and services.

Maintain, alter, adapt and move temporary works and services as necessary.

Remove when no longer required and make good.

ACCOMMODATION

SITE OFFICES:

The Contractor’s and his Sub-contractor’s temporary buildings, mess room, equipment, working materials and building operations will be confined to the Site and Working Areas. The Contractor’s staff will not be permitted beyond the boundary of these areas.

ROOM FOR MEETINGS:

Meetings will be held in the main Employer’s complex. The Contractor shall liaise with the Project Manager for booking meeting rooms.

SANITARY ACCOMMODATION:

Provide and maintain in a clean condition sanitary accommodation and drying room.

The accommodation must include an adequate number of appliances, wash hand basin(s) with hot and cold supply, with adequate heating, lighting and ventilation, to comply with the construction Health and Safety and Welfare Regulations.

Under no circumstances will the Contractor be allowed to use welfare facilities within the adjacent buildings.

CANTEEN/MESS FACILITIES:

The Contractor may use the main PHE canteen as long as overalls, dirty clothing or boots are not worn in the canteen. The Contractor should note no contractors shall be permitted to use the canteen facilities between 12.30pm and 13.30pm.

The Contractor shall not be entitled to use other welfare facilities within the building.

EQUIPMENT, SMALL TOOLS AND OTHER TEMPORARY WORK

EQUIPMENT:

The Contractor will provide and maintain all necessary equipment such as temporary fencing, hoardings, planked footways, guard rails, gantries, warning signs and the like for the proper execution of the works, for the protection of the Employer's staff, and other authorised personnel and for meeting the requirements of any Local or other Authority and alter, adapt and shift from time to time as necessary.

SMALL PLANT AND TOOLS:

The Contractor shall provide and maintain all necessary small tools for the proper execution of the works.

EQUIPMENT:

Provide all Equipment such as scaffolding, craneage, plant, tools, vehicles, implements and machinery necessary to Provide the Works.

TEMPORARY WORK

TEMPORARY FENCING, HOARDINGS ETC:

The Contractor shall provide, adapt and maintain as required by the work temporary screens to ensure that noise, dust and access from/to the contractors working areas are restricted.

Should the screen be located across a designated fire escape route then access will have to be maintained by the Contractor. All other necessary equipment such as temporary fencing, hoardings, screens, roofs, fans, planked footways, guardrails, gantries warning signs and similar items as may be necessary for protecting the public and others from the execution of the Works and for meeting the requirements of any Local Authority or other Statutory body and other, adapt and shift from time to time as necessary.

The Contractor must provide all necessary lighting (see also clause Lighting and Power for the Works).

WI 1010 SERVICES AND OTHER THINGS TO BE PROVIDED BY THE EMPLOYER

LIGHTING AND POWER:

The Employer's power supplies may be used by the Contractor to carry out the Works. The location of the supply connection is to be confirmed by the Project Manager. The Contractor shall allow for all alterations, adaptions and maintain as necessary, remove and make good on completion.

WATER:

The Employer's water supplies may be used by the Contractor to carry out the Works. The location of the supply connection is to be confirmed by the Project Manager. The Contractor shall allow for all alterations, adaptions and maintain as necessary, remove and make good on completion.

TELEPHONE LINE

A permanent land line installation will only be considered for projects lasting over 1 year

WI 1100 HEALTH AND SAFETY

WI 1105 HEALTH AND SAFETY REQUIREMENTS

RISKS TO HEALTH AND SAFETY:

See Pre-Construction Information

The nature and condition of the site cannot be fully and certainly ascertained before it is opened up.

Risks have been identified within the Pre-Construction Information.

The accuracy and sufficiency of this information is not guaranteed by the Employer or the Project Manager and the Contractor must ascertain for himself any information he may require to ensure the safety of all persons and the works.

The CONSTRUCTION PHASE HEALTH AND SAFETY PLAN developed from the Outline Construction Phase Health and Safety Plan must be submitted to the principal designer not less than 15 days before the proposed date for start of construction work. Do not start construction work until the CDM Coordinator/Project Manager has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by CDM Regulation 15(4).

EMPLOYER'S REPRESENTATIVE SITE VISITS:

Submit details in advance, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.

Provide protective clothing and/ or equipment on site for the Employer, the Employer's representatives and other visitors to the site.

WI 1200 SUBCONTRACTING

WI 1205 RESTRICTIONS OR REQUIREMENTS FOR SUBCONTRACTING

For reasons that are confidential to the Employer, certain contractors are not permitted to work on site at the PHE Site Porton Down.

During the Tender process the Contractor was requested to advise the sub-contractors that he intends to use for this project. Any prohibited Sub Contractors will have been advised by the Project Manager and a request made to select an alternative Sub Contractor.

Should a prohibited contractor be brought on site by the successful Tenderer that had not been advised at the pre-contract award meeting, the Employer will not be liable for any cost whatsoever incurred by the Contractor in replacing the prohibited contractor.

WI 1300 TITLE

WI 1310 MARKING

Subject to the agreement of the Project Manager and identified on the approved Activity Schedule the payment for any material or equipment stored away from the Employers site shall only be made subject to completion of a “Vesting Certificate “.

Materials or equipment shall be:

- In accordance with the Contract
- Insured
- Set apart and marked to identify they are the property of PHE, with the Job name and number.
- Stored as to prevent damage / degradation
- Available for inspection

WI 1320 MATERIALS FROM EXCAVATION AND DEMOLITION

MATERIALS FOUND:

Any materials or objects of value found on the Site will remain the property of the Employer and will only be sold or removed as the Project Manager will direct; access will be allowed to any authorised person instructed to remove same.

OWNERSHIP:

Materials arising from the alteration work are to become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

DISPOSAL

All copies of waste disposal certificates will be issued to PHE to confirm that all materials have been disposed of in accordance with the PHE’s waste management policy.

WI 1400 ADDITIONAL RECORDS

CONTROL OF COST

CASH FLOW FORECAST:

As soon as possible and before starting work on site submit to the Project Manager a forecast showing the Price for Work Done to Date at each assessment date throughout the Contract period and based upon the programme for the works and the accepted Activity Schedules.

This will be required to be updated as work progresses to reflect the revised program and the impact of any Compensation Events.

MEASUREMENTS:

Give reasonable notice to the Project Manager before covering up work which the Project Manager requires to be measured.

LABOUR AND PLANT RETURNS:

At the beginning of each week provide for verification by the Project Manager records showing, for each day of the previous week:

- The number and description of craftsmen, labourers and other persons employed on or in connection with the Works, including those employed by subcontractors.
- The number, type and capacity of all mechanical and power-operated plant employed on the Works.

WI 1500 EMPLOYER’S WORK SPECIFICATIONS AND DRAWINGS

The Contractor is to develop the design in accordance with WI300, its sub-clauses, the URS and Scope of Work

Appendix C - URS

User Requirement Specification

190098 – Research Ward New Build

PHE-PD/URS/190098/Research ward

Published 27AUG2020

Document Title	**USER REQUIREMENT SPECIFICATION**
Document Reference	PHE-PD/URS/190098/Research Ward New build
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Project:	Research Ward New build
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Prepared By			
Name	Position	Signature	Date
Ray Puddick	Project Manager		27AUG2020

Reviewed By			
Name	Position	Signature	Date
Michelle Finney	Project Sponsor		
Paul Day	Head of EEF		
Ginny Moore	Senior user		
Amber	BIG Engineering		
Robin Drake	Safety		
Richard Emerson Pink	Capital Works		
David Jenkins	Site Engineering		

Approved by and Behalf of Public Health England			
Name	Position	Signature	Date
Michelle Finney	Project Sponsor		
Paul Day	Engineering		

REVISION HISTORY				
Revision	Issued	Changes Summary	Author	Date

About Public Health England

PHE work with national and local government, industry and the NHS to protect and improve the nation's health and support healthier choices. We address inequalities by focusing on removing barriers to good health.

PHE were established on 1 April 2013 to bring together public health specialists from more than 70 organisations into a single public health service.

Public Health England
133-155 Waterloo Road
Wellington House
London SE1 8UG
Tel: 020 7654 8000
http://www.gov.uk/phe
@PHE_uk

Prepared by: Ray Puddick
For queries relating to this document, please contact: Ray Puddick

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CONTENTS

Glossary (including Acronyms)

ACDP	Advisory Committee for Dangerous Pathogens
ACH	Air Changes per Hour
BSIRA	Building Services Research and Information Association
CAD	Computed aided design
CDM	The Construction (Design and Management) Regulations
Contractor	The successful Tenderer who having been successful with their compliant bid has a valid contract with PHE to undertake the works. The Contractors responsibility remains in respect of all or any appointed sub-contractors. (*see also Tenderer).*
Corian	DuPont™ Corian® - certified for its stability against bacteria and fungi according European standard DIN EN ISO 846.
COSHH	The Control of Substances Hazardous to Health Regulations 2002, (as amended). The contractor should take note of the Approved Code of Practice and Guidance (L5) as published by the HSE and pay special regard to Schedule 3.
HSAC	Hazardous Substances Advisory Committee
HSE	The Health and Safety Executive
MAXIMO	Engineering asset management software solution used by PHE
MEP	Mechanical , Electrical and Plumbing
PHE	Public Health England
PMC	Principal Maintenance Contractor (currently EMCOR)
SAPO	Specified Animal Pathogens Order
Tenderer	The entity preparing to submit a compliant bid in relation to the associated Invitation to Tender for the project. The Tenderer should ensure they have allowed for all activities identified as the responsibility of the Contractor.(*see also Contractor*)
URS	User Requirement Specification

INTRODUCTION

1. This document is the User Requirement Specification (URS) for the Construction of a new research ward. It sets out the PHE user requirements that must be complied with in delivering the project. It should be read in conjunction with the PHE standard specifications.

2. The research facility shall replicate, where possible, a working hospital ward. The construction shall be modular in its nature to allow transportation by road should it become necessary.

3. The project is for a new facility on the Porton Site and as such will to be supplied with utilities from the existing site these will include but not be limited to:-

    - 200a 3 Phase electrical supply
    - Mains Water supply (tbc by supplier)
    - Drainage (tbc by supplier)
    - Data (tbc by supplier)
    - Fire (tbc by supplier)
    - Security (tbc by supplier)

4. The available space for this project will on the North side of the building at the west end covering an area of approximately 30m x 16m. A walkway will also need to be provided to access the entrance and the plant area. The new plant shall deliver conditioned air to the ward and shall recirculate the air as would be expected in a fixed ward. The Negative isolation plant will have a separate plant to create a negative pressure and shall include HEPA filtration on the exhaust. In broad terms, the scope of this project is, the design, supply, delivery, construction, installation, balancing commissioning testing and handover of a modular ward complete with all internal mechanical and electrical services.

Regulatory and Legislative Compliance Requirements

5. All works shall comply with regulatory, legislative and PHE requirements their use, operation and construction which shall include but not be limited to the following:

This URS document and all PHE specifications and documents referred to within it;
British Standard Specifications and Codes Of Practice;
The latest issues of the CIBSE Guides to Current Practice and Commissioning Codes;
BSRIA standards
Local Authority By-Laws and recommendations;
Local Water Authority By-Laws and recommendations;
Manufacturers Stipulations and recommendations for installation and testing;
Acts of Parliament;
COSHH;
Current Health and Safety legislation including the latest Construction Design and Management Regulations
Specified Animal Pathogens Order 1998
HSE Sealability of microbiological containment level 3 and 4 facilities
IEE regulations 17th Edition (BS7671)
BSEN 615011 – Functional Safety – Safety instrumented systems for the process industry sector.
BSEN 61508 – Functional safety of electrical/electronic/programmable electronic safety related systems.
All appropriate Health Building Notes (HBN)
HSE HSG 264 2010 – Asbestos: A Survey Guide
HSAC Guidance on safe working and the prevention of infection in clinical laboratories;
Current Building Regulations;
Current Government Bio/counter terrorism guidance;
Standard PHE specifications.

NB. Innovative interpretation of microbiological containment regulations and guidance should not be undertaken without consultation with the PHE project manager. Where this document is anomalous with the PHE standard specifications and the other associated documentation identified above, the Contractor shall actively seek clarification from PHE prior to tender submission.

PROJECT DESCRIPTION

Survey

6. The Contractor must ensure they survey the works areas prior to detailed design completion to assure themselves and confirm all and any modifications and installation requirements for steelwork, builders work and services etc. Detailed drawings showing the services, steelwork and builders work etc must be provided for review and comment by PHE prior to any work taking place. Note: it shall be considered that all requirements have been costed for in the activity schedule and pricing of the tender return.

7. The contractor should be aware that asbestos has previously been identified within the main building including voids and plant areas. They should take all precautions with respect to the identification and management of this including with respect to their employees, sub-contractors and others who may be affected by their works.

8. An asbestos survey (Management Survey or Refurbishment and Demolition Survey as appropriate to HSE HSG 264 2010) shall be undertaken prior to works commencing to identify any asbestos present. The contractor shall clearly identify the extents or their works and identify the needs of such a survey prior to site start. If a survey is required this shall be organised by PHE and undertaken by specialist contractors. The asbestos register shall subsequently be updated accordingly.

9. Surrounding areas are to be protected, with specific attention taken with the trees and their root systems and to prevent damage to live plant and services.

Installation of the new facility

10. The new system shall comprise of a modular building that can be dismantled and transported in the future.

11. The structure shall incorporate the following:--

    - 4 Bed Ward
    - Single bed negative Isolation Ward/en-suite
    - Single bed Isolation Ward/en-suite

- Clean Utilities
- Dirty Utilities
- Nurse station
- Gas Bottle Store
- Ward Office
- Ward Bathroom
- Ward Toilet
- Kitchen
- Staff toilet
- Plant Area

Room Requirements

12. 4 Bed Ward, this is required to replicate a live hospital ward but will not be housing patients e.g. such items as a nurse call system would need the equipment but not be required to call a nurse. Medical gases, electrical sockets and the like will be included at the bed head with the pipework being taken from the bottle store. An admin area has been included here, this will require a data point
13. Single bed negative Isolation Ward/en-suite. This is also required to replicate a live hospital ward but will not be housing patients. Medical gases will need to be piped from the bottle store
14. Single bed Isolation Ward/en-suite This is also required to replicate a live hospital ward but will not be housing patients. Medical gases will need to be piped from the bottle store
15. Clean Utilities. Please see appropriate HBN
16. Dirty Utilities. Please see appropriate HBN, Sluice will not be required
17. Nurse station This station shall replicate the nurses working environment
18. Ward Office General office environment with a date point and electrical sockets
19. Ward Bathroom see appropriate HBN and the proposed layout
20. Ward Toilet see appropriate HBN and the proposed layout
21. Kitchen see appropriate HBN and the proposed layout
22. Staff toilet see appropriate HBN and the proposed layout
23. A Gas Bottle Store, suitably sized to safely hold the gas bottles required for bed head gases (Oxygen and Vacuum) to current codes of practice.

24. The new HVAC serving the Ward shall be of robust design and manufactured by a reputable company whose specialism is HVAC system provision. The intended manufacturer shall be clearly identified by the Contractor at tender stage

25. It will be necessary to safely install the new plant into its new location. Full consideration shall be given to this by the Contractor at tender stage. Careful consideration shall be given to the weight of plant and structural loadings when off-loading and positioning plant and its support. If craneage is deemed necessary, this shall be identified at Tender stage and fully risk assessed and lifting plan prior to implementation. All documentation required shall be provided to the PHE for review and comment at least 7 days prior to the lift. All lifts shall be undertaken by suitably qualified and experienced persons.

26. The Contractor shall install, commission test and carry out 7-day monitoring of the works and including all new services according to their design and the specifications. PHE require to inspect the works and witness all failsafe testing.

27. New compliant and dedicated HVAC systems for the ward with a separate plant for the negative isolation room shall be provided. The laboratory suite and its plant shall be capable of being operated, serviced, maintained and tested etc., whatever the operational status of the adjacent isolation areas. The AHUs and the extract units shall be located externally to the ward. The ward system shall have its own dedicated standalone controls. Each HVAC system shall be designed to safely operate without invasive maintenance and servicing for continuous periods of 12 months.

28. It is envisaged that the extract fans will be mounted externally on a prepared hard stand. All external plant shall be selected and designed to be used externally. Any traversing ductwork shall be above head height to allow safe access to the fans for maintenance. The installation shall be such as not to compromise access and maintenance to drain covers, services and fans.

29. The plant power shall be taken from a local distribution point located in the South west corner of the proposed construction site. All power cabling shall follow designed routes in appropriate power cable tray.

30. Control Cabling shall be run between the control panels and field devices in designed routes and containment. Cabling from the control panels shall be run following designed routes in appropriate cable tray.

31. Cooling water coil condensate shall via a deep trap and break, be run off the plant platform in a designed route to foul drain locally. Plant height will need to be determined by the trap height requirement.

Supply Air Handling Unit

32. The General ward area shall have its own supply Air Handling Unit (AHU) located within the plant area. The supply make up air shall be taken via louvred doors from ambient. There shall be sufficient distance between the supply inlet and the extract discharge to prevent discharged extract air from entering the supply inlet. There shall be sufficient distance between the supply inlet and any other local extract discharges to prevent discharged extract air from entering the supply inlet. The pre-filter shall be protected from rain snow and leaf ingress at the supply inlet.

33. The system shall be located to ensure safe and easy maintenance access and component replacement without having to remove unrelated components or components of other local plant.

34. The conditions the HVAC system shall achieve are detailed in Appendix A

35. External conditions that shall be taken into account during the design are detailed in Appendix B

36. Supply air shall be introduced in to each area at high level with extract air suitably placed. All valves, dampers, gauges, drains, vents and actuators etc shall be easily accessible for inspection, commissioning and maintenance.

37. The AHU shall as a minimum contain the following components

Vector prevention device
Volume control dampers
Pre-filtration
Post filtration
Frost coil
Cooling coil
Eliminator
Heating coil
Variable frequency inverter controlled direct drive centrifugal fan
Viewing windows and switchable lights
Appropriately typed and ranged pressure gauges
Temperature sensors
Pressure sensors

38. A single inverter, motor and fan set-up is required for the supply air system. In case of failure of the supply air inverter, fan or motor the whole ventilation system shall fail safe and the ward shall not become excessively negatively pressurised. The inverter, fan and motor shall be identified on the critical spares list. The design shall allow for easy, safe and rapid replacement of these components. The supply system should have an additional 20 % capacity over the design duty specified.

Extract Plant

39. The General ward area and the Negative isolation room shall have its own new dedicated fully weatherproofed extract air plant located externally to the laboratories. The extract system for the laboratory suite shall consist of a fully welded filter housing mounted flush to the ceiling. The extract ductwork shall traverse across the ceiling descending to the plant area...The exhaust air discharge directly to atmosphere. The extract stack shall increase discharge velocity. This shall be no less than 15 m/s however the designer shall ensure the extract discharge effectively leaves the building environs.

40. Each fan shall be a variable frequency inverter controlled direct drive centrifugal fan. Each will have its own inverter and motor. The extract inverter, fan and motor shall be identified on the critical spares list. The design shall allow for easy, safe and rapid replacement of these components.

41. The Supply and extract filter housing shall hold a Camfil 605mm x 605 mm x 100mm deep H14 or better HEPA filter. This shall be protected by a removeable and replaceable ‘bondina’ prefilter. Filters shall not be fitted to the housings during this phase of the project.

42. All filter housings should be fitted so that there is a permanent and durable seal between the housings and the building fabric.

43. The extract system should have an additional 20 % capacity over the design duty specified without the need for overspeeding.

Ductwork

44. New ductwork and filter housings shall be provided. All ductwork shall be designed and sized to avoid undue energy usage and noise.

45. All Ductwork shall be installed in accordance with DW144 Class B. Ductwork between and including the filter housings/ room inlets.

46. All ductwork joints shall be demonstrated for air tightness. Gaskets between flanged joints shall be of a non-hardening material suitable for the lifetime of the installation. All other ductwork joints shall be as hard cast with a rolled-duct sealant manufactured with a modified butyl adhesive joined to a mill-finished aluminium foil backing e.g. HARDCAST FOIL-GRIP 1403-181BFX or its equivalent or better.

47. Exhaust air shall pass direct to atmosphere. Exhaust air shall not be recirculated.

48. Balancing dampers should be fitted to all supply and extract ductwork legs.

49. Accessible DOP test ports should be located in all extract ductwork legs on the exhaust side of the tight shut dampers. They should be fitted close to the tight-shut dampers but without causing detrimental effects.. This will enable the DOP to be applied room side and measured upstream.

50. A mechanical means of preventing reverse flow shall be provided.

51. All manually controlled balancing dampers shall be capable of being locked off at any position within their range. Following balancing and commissioning the dampers shall be locked of in their commissioned position. Position indicators are required

52. Internal ductwork shall be thoroughly cleaned of all swarf, and debris prior to setting the system to work

Ductwork Testing

53. All ductwork and installed components within the ductwork system shall be tested as, and meet the requirements of, DW144 class B medium pressure ductwork.

54. Test holes used for the insertion of monitors and probes including pitot tubes shall be deliberately designed, located and formed. Test holes shall be sealable with a designed mechanical fixing. It is unacceptable to drill holes post installation for these tests and to then use plastic bungs to fill them before covering up with insulation. Any insulation over shall be designed to be removed and replaced intact as needed for commissioning, servicing and maintenance, and investigations. The location of test holes beneath insulation should be clearly identified. Spacings shall conform with the recommendations given by the BSRIA.

55. Ductwork shall be thoroughly cleaned of all swarf, and debris prior to setting the system to work including any testing. Once cleaned, the

ductwork shall be blown though for a suitable period prior to the fitting of terminal HEPA filters.

Insulation

56. Extract ductwork shall not be insulated

57. All other components shall be insulated for energy-saving and safety purposes to industry standards. The insulation shall be designed to last the lifetime of the installation. Protection of the insulation shall be incorporated to resist all detrimental effects it may be subject to. Installation of insulation shall allow maintenance and testing. The insulation on external components shall be wholly weatherproof.

58. All external plant shall be appropriately weatherproofed

59. Insulation and weatherproofing shall not be applied until the ductwork leakage testing has been successfully and demonstrably untaken.

Fumigation - General

60. Fumigation (gaseous disinfection) will not be undertaken within the facility

Chilled Water Pipework Modifications

61. Chilled water will not be available for this project.

10 UTILITIES

Heating Ventilation and Air Conditioning

62. Sufficient space shall be allowed around all HVAC plant to permit full maintenance and replacement of all components.

63. Vibration shall be actively minimised. Vibration monitors e.g. Kittiwake Holroyd sensor, shall be fitted to each fan to sense fan deterioration for preventative maintenance.

64. Noise generated by the HVAC shall be actively minimised. The design noise levels shall be advised to the client during tender stage. Attenuation shall be provided within extract and supply ductwork.

65. The HVAC system and its controls shall be fully commissioned and tested. Full operational and failure mode scenario testing shall be undertaken, demonstrated and witnessed. The minimum failure mode scenario testing requirements are indicated within the PHE standard specifications.

66. During all normal operations, plant changeovers, shutdowns, and all failure mode scenario testing, it shall be demonstrated that a net inward flow of air into the negative isolation room exists. The single exception to this is during a full laboratory plant shutdown where the room should stabilise to atmosphere pressure.

67. Under all normal operational conditions, the ward in it’s entirety shall fully meet the environmental conditions stated within this document and comply with all relevant standards, regulations and guidance.

68. Each HVAC system shall be designed, installed and commissioned to achieve the requirements of a standard hospital ward.

69. The HVAC design is to be proposed in the tender documents.

70. Distribution of electrical and data services throughout the lab are ideally undertaken in Dado trunking, the data and electrical services run in separate compartments to avoid data interference. Light switches, etc are also mounted on the Dado trunking.

71. Care should be taken that the final extract outlets and supply inlets positions and their designs do not compromise net inward flow and directional airflow.

Plant Controls

72. The laboratory suite HVAC system shall have its own dedicated control panel, located in the plant area. The controls shall be robust and wholly compatible with the existing Site Trend™ BMS.

73. All service operations shall be monitored and controlled by an independent BMS and local control panel.

74. Should a loss of power occur and the system shuts down, automatic start-up of plant and equipment and a return to operating conditions shall take place once power has been restored.

75. Pressure and air volume control should be automated. However, the ability to change volumes etc will be a requirement

76. There is a need for hardwired interlocks between the air supply and extract systems.

77. There is a requirement to monitor room temperature.

78. The designer should fully consider possible failure modes and fail safes and alarms with regards to the room operation and design intent.

79. The setting up and testing of ventilation plant serving the suite is critical to the success and safety of the facility. The system must be commissioned and tested in all fault conditions.

80. PHE require to review and comment upon the control system design prior to its implementation. It is expected that this design will, as a minimum, include a written description of operation, the Functional Design Specification, software design specification, hardware design specification control wiring schematics, panel layouts and instrument and field device schedule and locations.

81. The contractor shall provide the following for a design review:

Production of panel/wiring and field hook up drawings

Detail design of the automatic controls system for the mechanical building services associated with the project.
Engineering design
Software programming
QA
Supply, fabrication and erection/installation, testing, setting to work and commissioning of the following in relation to the BMS:
All instruments and control devices (unless specifically defined as supplied by others)
Main PC and operating systems, system graphics and management software, communications hardware and software
BMS out-stations and controllers, panels and interface equipment such as interposing relays, galvanic isolators (for intrinsically safe circuits), I/P transducers, positioners, I/O modules, software, field and network wiring, local trunking and conduit systems (excluding arterial ladder / trunking routes), pneumatic tubing and the like required for a complete, functional automatic control system. All out stations are to be supported by UPS or essential supplies
An individual independent temperature and humidity monitoring system shall be provided to protect areas being served from excessive temperatures and humidity's. Steam/low pressure hot water (LPHW) control valves shall be provided to shut down the steam/LPHW on detection of excessive internal conditions.
In addition to the detailed controls philosophy, the designer should issue a summary of the controls and ventilation philosophy for review and comment by PHE as part of the design stage It should be written clearly in order that it may be understood by users and non-engineers involved with the project. It should include a description of:
how the air is supplied/made up
how air is extracted and where the fans discharge to, and HEPA filtration
where does the extract air discharged to, and is there an effect of adjacent buildings etc especially when discharging fumigant
what happens when the equipment is switched on and off
how down draught cabinet performance is linked to the ventilation system
where the lines of containments are
where the various dampers to isolate and balance the zone are
where the controls are and what they operate
what the normal operating parameters are in order that any deviations can be recognised
basis for fumigation procedures including a clear statement on what the ventilation system design allows in terms of individual room or whole suite fumigation and how the ventilation systems works to allow these or not as the case may be
How to undertake the fumigation procedure including what to do to seal the laboratory for fumigation, how to clear the laboratory of fumigant afterwards

using the ventilation system and how to restart and check the ventilation systems is operating within design parameters

Control strategy to be supported by a simple flow chart or checklist detailing the precise sequence of events and include approximate time lags for each stage and what readings should be indicated on the Magnehelic gauges.

82. It is advisable for the Control system to have a minimum of 10% spare capacity for future requirements.

83. Unless already fitted pressure differential gauges are required to be installed on the negative isolation room wall to monitor the laboratory to ward pressure status. These shall be centre zero Magnehelic gauges, suitably ranged and measure in Pascals

84. In the event of fire alarm activation, the labs HVAC system is to remain operational to maintain containment. A Fireman's switch is to be provided that will disable the HVAC on advice from the Fire brigade.

85. The controls installation must conform to the PHE standard specification for controls installations.

Room Temperature Control

86. The temperature of each space shall be monitored complete with a link to the central BMS system. Temperature set points shall be able to be modified at the central BMS head end in the power house as well as locally at the local control panel. Room temperature shall be adjustable within the range specified within this user requirement specification.

87. Room temperature requirements are stated with respect to the occupied zone. Room temperatures shall reflect the occupied zone.

Room Pressure Control

88. Only the one isolation bed will be pressure controlled. The fans shall be driven by VF Drives to enable pressure to be varied. Should pressure differentials go out of limits (high and low level), a direct acting beacon shall alarm. The supply air shall be maintained at a constant volume, via a variable speed drive, to meet the required air change rates. At no point shall the laboratory become positively pressurised with respect to ambient.

89. The exhaust for each room shall be controlled to maintain the room pressure differential. Dampening of the BMS feedback loop is to be introduced to avoid "hunting" of the room pressures to allow for transient personnel movements into and out of each laboratory and to prevent this from affecting the overall pressure regime control.

90. All manual balancing dampers to be able to be padlocked in position (or a padlock shroud fitted over the adjustment locking bolt) to prevent uncontrolled adjustment.

91. The differential pressure reading shall be controlled to ambient.

92. All air leakage paths shall be identified and documented.

Power

93. Power to operate the ward shall be provided in a GRP housing at the perimeter of the designated area. Power shall be taken from this location and be distributed within the areas as necessary. The contractor shall at an early stage before design completion advise PHE of the power requirements of their design to allow PHE to advise a take-off.

94. All power cable penetrations through the building fabric shall be fully designed with an appropriate waterproof solution provided.

95. Any cables installed must be run on suitably sized tray and conform to the PHE standard specification for electrical installations.

96. Electrical installations and all wiring should be designed and installed and certificated to meet the latest IEE BS7671 regulations. This should include all EEBADS and continuity testing. It should also include the recent wiring colour changes and should be labelled as such.

97. Electrical certification is to be provided within the O&M manual

Lighting

98. The lighting arrangement needs to be within the current requirement for hospital wards

Adequate Lighting should be provided throughout the suite to provide a minimum maintained illuminance of 500 lux at bench-top level (900 mm AFFL)

Sufficient quantity and locations should be provided to avoid the need for task lighting and the creation of shadows from shelving, equipment or personnel.

Fittings should be of a low energy design

Emergency lighting should be fitted as demanded by the various regulations in force and these should be connected back to a test point mounted close to the room light switch. Adequate emergency lighting is to be provided to make work safe under power loss conditions. This is in addition to emergency egress lighting

Preferred fittings are the Dextra LED units (or equivalent).

Functional Alarms and Indicators

99. Room pressures shall be directly measuring actual room pressure against a local ambient reference point and visibly monitored with Calibrated Magnehelic gauges (centre zero gauges - mid range). A set of gauges should be positioned external to the laboratory entrance to indicate to the user the status of the room pressures before entering.

100. A visual pressure failure alarm should be positioned within laboratory 053 to alert users within the laboratory of a laboratory pressure issue, and also external to the suite by the laboratory entrance to warn users about to enter the suite of a laboratory pressure issue. A traffic light system shall be provided. They should indicate green when systems are within limits and flash red when systems are out of specification. A delay should be introduced within the pressure monitoring control system to prevent spurious alarms during doors opening into/out of the laboratory.

CONSTRUCTION

Protection

101. The Contractor shall ensure they fully protect PHE property, equipment, plant, services and people from their works and their work-related activities.

Noise

102. Noise levels within areas shall not exceed NR 45 50 dB(A). There shall be without distinct tonal content. Noise levels shall be met with all equipment operational.

Dust and Fumes

103. It is not acceptable for dust and fumes however innocuous, from construction and installation activities, to enter PHE working areas.

Access

104. General site access is controlled by PHE. All contractors working on site must have undertaken a site induction. Once inducted, passes may be drawn and returned daily at the security gatehouse at the site entrance by prior arrangement.

105. Site access to be controlled by the contractor under the CDM legislation.

Floors

106. The vinyl flooring should be non-slip when wet and should conform to the requirements of EN 649: 1996, with a usage classification defined as light industrial areas with heavy usage or equivalent.

107. Floors shall be protected from construction and installation activities and debris. Any necessary penetrations shall be made good to match the existing floors. Through penetrations shall be sleeved and appropriately sealed. Sealing shall ensure flooding cannot occur. Silicone and mastic solutions are not acceptable as the primary seal.

108. Partial penetrations for fixings shall be cleaned of dust and filled with an appropriate sealant prior to fixing application to ensure leakage into and through the fabric does not occur. Penetrations shall not form a habitat.

Walls and Ceilings

109. Walls and ceilings shall be protected from construction and installation activities and debris.

110. All Penetrations through and into laboratory walls and ceilings shall be made good. Wall finishes should be seamless/joint less and should not permit leakage of fumigant and should withstand negative pressure at any point. GRP should be used to provide an hygienic impervious chemically resistant finish. Acceptable GRP products are provided by Liquid Plastics, Construction Specialities and SIKA. As a basis for selection, C/S Armourglaze by Construction Specialties (UK) Ltd. or its equivalent or better shall be offered. The colour should be Magnolia (BS 08 B 15) although white may be acceptable provide the glare is deemed acceptable by PHE.

111. Through penetrations shall be sleeved where appropriate. Silicone and mastic solutions are not acceptable as the primary seal.

112. All penetrations through laboratory surfaces for services should be managed using stainless steel wall plates fully fixed and sealed to the wall, prior to incorporation into the fabric with GRP coating. All joints shall be welded in place as appropriate. Triclover fittings and military fittings are generally considered acceptable.

113. Partial penetrations for fixings shall be cleaned of dust and filled with an appropriate sealant prior to fixing application to ensure leakage into and through the fabric does not occur. Penetrations shall not form a habitat.

Doors

114. Doors selected shall be equivalent to those used in a normal hospital environment

115. They shall be sized to allow the ingress and egress of all hospital equipment

116. Where applicable the leakage area under and around the doors shall be used in the design calculations for pressure differentials.

Windows

117. Each area shall have openable windows that are able to be restricted for health and safety reasons.

118. Window openings shall be approximately 1000 mm wide x 1000 mm high and shall be locked from the inside.

119. All penetrations are to be made good and fully and wherever possible, mechanically sealed. General sealing shall be applied internally and externally and within the window reveal. Vector ingress shall be prevented.

Furniture

120. Not applicable for this project. Exisitng furniture shall be protected from construction and installation activities and debris

Sinks / Showers/ Drains

121. Shall be robust and selected from the range of equipment typically used by the NHS.

MISCELLANEOUS

Technical Data

122. As part of this specification, assumptions may have been made. The contractor should review the supplied technical data before undertaking any design calculations. Any calculations undertaken by the contractor as part of their design should be submitted to the PHE prior to undertaking any works.

123. All intellectual property for designs provided by the contractor is not to be restricted and PHE reserves the right to their access at all times. All designs provided by PHE are the property of the PHE and may not be used without written consent.

Security / Access

124. Security/access provisions for the rooms should be in accordance with PHE specification and requirements. A coded entry lock shall be included on all external doors.

125. All switches relating to the control of the supply and extract fans (i.e. off/manual/auto) must be key activated to prevent accidental operation. All key switches to be the same key with the key located in a break-glass mounted locally to the control panel.

126. All plant must be housed within a restricted access area. If the plant is not located within an existing PHE controlled plant-room, a secure system with simplex lock access must be constructed to prevent unauthorised activation of the key isolators that will affect the containment control system.

127. All controls and access to all parts of the ventilation system should be easily accessible and outside of the laboratory containment area. All systems should be tamper proof to prevent unauthorised adjustment.

Inter-Communications etc.

128. Not applicable for this project.

Fire Alarms

129. Smoke detectors and annunciators shall be connected to the site wide system, protected from construction and installation activities and debris. Isolations and de-isolations are undertaken by prior arrangement with the PMC

Monitoring

130. The Trend™ building monitoring system (BMS) shall be used to monitor the environment and alarms in each laboratory in accordance with the PHE specification.

Signage

131. All appropriate signage and markings shall comply with the requirements of the PHE Standard Specifications and industry standards and regulations. These shall include safety, identification and directional labelling.

Pressure vs air flow

132. The default requirement to determine that a laboratory has a net inward flow of air is the differential pressure between the laboratory and its reference ambient. It is required that air volume or air flow of the supply and extract of each laboratory is measured with easily accessible ductwork mounted calibrated devices and continually monitored via the BMS. If the design room air change rate alters or the differential volume between supply and extract moves out of specification within a designed margin and the accuracy of the instrument then a BMS alarm shall indicate and a light on the plant control panel shall indicate. The control panel and BMS front end graphics shall give a numerical output of the airflow rates of supply and extract.

COMMISSIONING & VERIFICATION

Commissioning

133. Following the design of the works, the successful tender shall present his design for review to the PHE team to ensure that good design practice has been achieved, and that operation, construction and commissioning can be achieved safely and effectively. This shall be preceded with the design documentation package being issued to the PHE project manager electronically and in hard copy one week prior to the presentation. Issues identified shall be rectified to the satisfaction of PHE by the Contractor and resubmitted for review and comment. Works are not to proceed on site until this process has been completed.

134. Once the works are installed the HVAC system and the laboratory associated with that system shall be balanced. The correct airflow and pressure regimes shall be established and recorded

135. The Contractor shall commission the works including successful demonstration of all the operational features which shall include but not be limited to:

Demonstration that the installation phases are complete.
Provide test and calibration certificates for validation purposes.
Evidence that all installation faults or omissions have been rectified.
Demonstration that the installation has been adequately adjusted and set in operational order.
Demonstration that the differential pressure regimes are maintained with normal laboratory traffic and usage.
Demonstration that all failure modes of HVAC all function correctly. Full simulated scenario testing will be undertaken by the contractor or commissioning engineer to ensure that the laboratory, plant and equipment fail safe under all conditions.
Demonstrate a successful simulated fumigation of each laboratory
All required operational and performance tests have been satisfactorily completed and documented.
Tested for fumigation and sealability.
Provision of a written Commissioning Report.

136. The credentials, qualifications and experience of the proposed commissioning staff or commissioning contractor must be identified to PHE for review and comment prior to their appointment.

137. The commissioning programme shall be identified and included within the Contractors and Contractors programme for review and comment by PHE.

138. A draft commissioning plan is required to be issued at the design review stage. The completed plan including commissioning method statements, test sheets and schedule shall be issued to PHE for review and comment two weeks prior to commissioning commencing. The issue of the plan shall be a line item on the Contractors programme. The PHE will witness all the tests or select those tests it will not witness.

139. All components are to be checked to ensure that they meet the agreed specification.

140. Each laboratory will be subject to a two-week environmental stability test (required by the Home Office) prior to final hand-over. Practical completion cannot be accepted without successful environmental stability testing.

141. Each laboratory will be leak tested by PHE compliance team prior to handover of the areas to the successful contractor. Testing is based on BSRIA Technical note 19/2001 Air Tightness Testing.

142. Following the works the PHE compliance team will retest the leakage which must be equal to, or have less leakage, than found prior to the works. Practical completion cannot be accepted with a greater leakage than previously recorded. It is expected the contractor will thoroughly check for leaks using a smoke pencil or similar prior to PHE testing.

143. Following successful fumigation simulation of each laboratory, PHE will undertake live fumigation. Practical completion cannot be accepted without a safe live fumigation being undertaken

Verification

144. Verification is a requirement for this facility, but is excluded from the vendor scope of supply. However, all O&M, commissioning and testing documentation shall be provided to the client prior to associated activities and before project end to facilitate verification.

145. The Contractor shall provide support documentation as detailed within the appendices

146. No Factory Acceptance Testing of the equipment is envisaged.

Documentation

147. The documentation required to be produced by the Contractor during the project are scheduled in the Appendices.

148. The contractor shall supply Draft O&M manuals 4 weeks prior to practical completion to allow PHE comment.

149. The contractor shall supply completed O&M Manuals including as built drawings etc prior to practical completion. Following approval two hard copies and one soft copy shall be supplied to the PHE.

NB. Practical completion will not be given without receipt of O&M Manuals that are completed to the satisfaction of PHE

150. The contractor shall provide ‘as-built’ drawings reflecting changes during construction for the completed systems for the Electrical, Controls and Mechanical Building Services installations and provision of comprehensive operation and maintenance manuals for each.

151. All installed plant, equipment and services should be correctly and permanently labelled and cross referenced appropriately within the O&M Manual.

Component Schedule and Tagging

152. As part of the post-installation commissioning process, The Contractor is to produce a full and complete schedule of all components and instruments including their need for maintenance and/or calibration. The schedule shall be handed to PHE. There are two significant parts to this.

The schedule shall be handed to PHE. The PHE CAD office will assign TAG numbers for these components. The Contractor shall incorporate the assigned TAG numbers into all as built drawings and schematics. The Contractor supply and securely attach engraved discs bearing the appropriate TAG numbers to the component or instrument.

Upon receipt of the schedule, PHE will onboard the component or instrument onto the site MAXIMO system. This will generate a UR number which PHE will fix to the component identified by the TAG number.

Training

153. All workings of the ventilation system especially the controls are to be demonstrated and explained to both PHE user and maintenance representatives.

Preferred Equipment Suppliers (or equivalent)

154. The following list of equipment suppliers have been extensively used at a large PHE site and have been proven to operate reliably over a number of years. PHE will not accept any liability for any issues arising from the use of these suppliers or their products. Assurance must be provided by the designer that the use of any supplier/product listed or otherwise will satisfy the requirements of the project

Inverters - Danfoss/ABB
BMS/Controls - Trend
Gas-tight Shut off Dampers: Motorised Air Products (MAP)
HEPA Filter Housings and Filters: Camfil
Vinyl – 2.5 mm Polyflor/Polysafe (non-slip when wet)
PLC – Siemens/Allen Bradley
Distribution Boards – Merlin Gerin
Chillers – Carrier
Small Air conditioning units – Daikin
Large Air conditioning units – Senior Moducel
Pressurisation Sets – Hamworthy
Motors – Brook Crompton, ABB
Actuators – Belimo
Steam Components - Spirax Sarco
Pumps – Grundfos
Electrical distribution components – MK Electric
Lighting/control – Thorn/Philips
Balancing Valves – Tour & Andersson Ltd
Utility Valves – Crane/Hattersley
Air Products – Norgren/SMC/Festo
ABS Pipework – Georg Fischer
Lab Doors – Dortek/Lami
Access Control – Honeywell
Penetration Fittings – Roxtec/FC Lane (LMF Fittings)

APPENDICES

Appendix A: Laboratories 051 and 053 Required Environmental Conditions

155. The following table identifies the environmental conditions of normal operation required and to be provided in the Modular Ward

Modular Ward Operational Environmental Conditions Requirements		
Laboratory Number	**Negative isolation room**	**General areas**
Room Function	Microbiological containment laboratory	Microbiological containment laboratory
Containment Level	ACDP CL3 and SAPO3	ACDP CL3 and SAPO3
Laboratory Differential pressure (Pascals) Laboratory to BIG Grey Corridor as Ambient (Note : Room Cascade to be maintained)	Negative 50 Pascals	Ambient
Temperature (°C)	Set point adjustable by one ˚ C between 17 ˚ and 22 ˚ C no greater variance than +/- 2 ˚C of Set Temp	Set point adjustable by one ˚ C between 17 ˚ and 22 ˚ C no greater variance than +/- 3 ˚ of Set Temp
Relative Humidity (%RH)	Not Controlled	Not Controlled
Design Air Changes - Air changes per Hour (ACPH)	Variable Occupancy to 20 ACPH.	Variable Occupancy to 20 ACPH
Noise	Less than NR45 and 50dBA and without distinct tonal content	Less than NR45 and 50dBA and without distinct tonal content
Main Equipment	None	None

Appendix B: Environmental Design Criteria

156. The following table identifies the environmental conditions of normal operation required and to be provided in the Modular Ward

Modular Ward Environmental Design Criteria		
Laboratory Number	**Negative isolation room**	**General Areas**
Summer Design Condition	30 ˚ Dry bulb 22 ˚ Wet bulb	30 ˚ Dry bulb 22 Dec Wet bulb
Winter Design Condition	Minus 7 Dec Dry Bulb 100% RH	Minus 7 Dec Dry Bulb 100% RH
CIBSE Environmental data location:	Boscombe Down	Boscombe Down
Heat Loadings	Non-seasonally defined range from zero load to 2.5 kW equipment plus/or 4 persons. Conditions to automatically adjust to suit seasons and load	Non-seasonally defined range from zero load to 2.5 kW equipment plus/or 4 persons. Conditions to automatically adjust to suit seasons and load
Hours of operation	24/7/365	24/7/365
Air velocity	Kept to hospital standards and Air change rates	Kept to hospital standards and Air change rates
Ventilation Philosophy	Net inward flow of air. Directional airflow from doorway to extract with. No dead spaces	Turbulent air flow as standard hospital ward
Specific Fan Power (Electrical fan power of the fan arrangement divided by the volume of air through the system)	Upper limit of 2 W/(l/s)	Upper limit of 2 W/(l/s)

Appendix C: Documentation Schedule

157. The following table lists the documents required to be submitted to the PHE by the Contractor / Contractor. This list is not exhaustive, other documentation shall be required as identified within the URS and its associated documentation and/or as part of the project execution and general project administration requirements

190098 Modular Research Ward - Documentation Schedule				
Document	**Tender Stage**	**Before Construction**	**Before Commissioning**	**Final Documentation**
Health and Safety Policy	Yes			
Design Proposal	Yes			
Tender Compliance Matrix	Yes			
Activity Schedule	Yes			
Quality Plan	Yes			
Project execution plan	Yes			
Project programme	Yes			
CVs of Key staff to work on project	Yes		Yes	
List of intended sub-contractors	Yes	Yes		
References	Yes			
Construction Phase Health and Safety plan		Yes		
Installation drawings		Yes		
Material Safety Data Sheets		Yes		
Design safety review		Yes		
Design Calculations		Yes		
Detailed Design Specification		Yes		
Detailed design and general arrangement drawings and schematics		Yes		
Component and instrument schedule		Yes		
Strip out plan and Drawings		Yes		

190098 Modular Research Ward - Documentation Schedule				
Document	**Tender Stage**	**Before Construction**	**Before Commissioning**	**Final Documentation**
Control Strategy and philosophy		Yes		
Ventilation Strategy and philosophy		Yes		
Control panel layouts		Yes		
Control wiring diagrams		Yes		
Electrical wiring diagrams		Yes		
Utility requirements		Yes		
Commissioning Plan		Yes	Yes	
Commissioning Method Statements and Risk Assessments			Yes	
Commissioning Programme		Yes		
Test sheets			Yes	
Calibration certificates of test instruments			Yes	
Commissioning Report				Yes
Fail safe test sheets				Yes
Instrument calibration certificates				Yes
Operation and Maintenance manuals				Yes
Maintenance Instructions				Yes
Calibration Instructions				Yes
Preventative Maintenance schedules				Yes
Whole life costs				Yes
Component Data, Literature and Instructions				Yes
Manufacturers Data Literature and Instructions				Yes
As Built Drawings				Yes
Material certificates		Yes		Yes
Spare parts list				Yes

190098 Modular Research Ward - Documentation Schedule				
Document	**Tender Stage**	**Before Construction**	**Before Commissioning**	**Final Documentation**
Critical spare parts list				Yes
Technical Monograph				Yes

Appendix D: Drawings & Sketches

158. The documents listed below are provided as an attachment to this URS. They are indicative and for information only. The Contractor and/or Contractor should assure himself of its validity prior to the provision of any solution or proposal.

Modular ward
Sketch of Working Area Location

159. The above named sketches may be found in Appendix F of this document

Appendix E: Witnessed Acceptance Testing and Failsafe Testing

160. It must be demonstrated to PHE during witness testing of all the functions of the HVAC (start-up, failure modes, fumigation cycles, shutdown etc.) that the pressure of the lab areas do not become positive to their reference ambient pressure while the lab is in operation. This must be witnessed by indication of the Magnehelic/photohelic and not by solely relying on the controls graphs. It is the responsibility of the contractor or commissioning engineer to ensure all appropriate software/hardware/hard wired interlocks are installed to ensure adequate environmental and containment control in all expected operational/maintenance situations.

Appendix F: Site Sketches

Modular Building Plan View

TW-PLAN-01 -
Preliminary Test War

Sketch of Working Area Location

Mobile ward location 1.pdf

Appendix D – Pre-Construction Information

OFFICIAL SENSITIVE

Public Health England

PRE-CONSTRUCTION INFORMATION

FOR THE

CONSTRUCTION OF A TEMPORARY WARD

FOR

PHE, PORTON DOWN

PROJECT NO: 190098

Prepared By			
Name	**Signature**	**Date**	**Issue**
R. Puddick		01/11/2020	1
Reviewed By			
Richard Emerson Pink	**Signature**		

Approved By			
Discipline	**Name**	**Signature**	**Date**
Project Manager	R. Puddick		
Construction Manager	TBC		
Health & Safety	R. Drake		

CONTENTS

APPENDICES

1 INTRODUCTION

The purpose of the Pre-Tender Health & Safety Plan is:

- To pass safety related information to prospective Principal Contractors so that they can prepare outline submissions that would demonstrate to the client their competence and resource allocation to meet the health and safety issues associated with this project.

- To provide a document for the Principal Contractor to develop into the Construction Phase Health & Safety Plan.

2 DESCRIPTION OF PROJECT

2.1 Project Title: Construction of a Temporoary Ward

2.2 Project Location:
Porton Down
Salisbury
Wiltshire
SP4 0JG

2.3 Client: Public Health England

Address:
Porton Down
Salisbury
Wiltshire
SP4 0JG

2.4 Client's Representative: Engineering Estates and Facilities

Address:
Porton Down
Salisbury
Wiltshire
SP4 0JG

Contacts: Mr. R. Puddick

Tel: 019 8061 9707
Mobile: 077 8598 5664
E-mail: ray.puddick@phe.gov.uk

2.5 Designer: Principal Contractor / PHE

2.6 Principal Contractor: Appointed Design and Build Contractor

2.7 Principal Designer: Appointed Design and Build Contractor

2.8 Nature of Project:

The temporary ward is a new construction. It shall be designed to replicate a working Hospital ward. The ward shall have, as a minimum, a four bed ward area, an isolation bed area, a negative pressure bed isolation area, clean and dirty utilities area, bottle store, Kitchen, Nurse station, Ward office, equipment store and toilets.

All works to be in accordance with the project specification. The proposed works are within the Public Health England Site. The site is within a security fence with strict control regarding access and egress. Operatives shall have a minimum of DBS clearance

The adjacent areas are primarily used for laboratory research, these will remain in use during the course of the works.

The basic scope of works comprises the following:

- Provision of a modular construction 27m x 12m
- Installation of all new mechanical, medical gas & electrical systems.
- Installation of all fixtures and fittings including decorations to walls, floors and ceilings.
- All builders work in association with the above.
- Provision of all record drawings, operating and maintenance instructions and other documentation requirements identified within the Pre-Tender Information Plan for inclusion in the Health & Safety file.

2.9 Existing Records and Drawings

As this is a new build there are no drawings held by PHE. The Principal Contractor is to satisfy himself with regards to the accuracy of the information contained therein.

Refer to Appendix IV for Drawings issued with this plan.

There are no existing health and safety files that would be relevant to this project.

2.10 Timescale for Completion

The commencement date is anticipated for January 2021 with completion by the end of March 2021.

It is anticipated that there will a lead in time from appointment of Principal Contractor to commencement on site of 3 weeks.

3 EXISTING SITE DESCRIPTION

3.1 Surrounding Site Uses and Restrictions

Access will be gained from the main access road, the site shall be enclosed with temporary fencing securely located for the duration of the project.

The site, as a whole, is used for research and studies and will be required to house flexible film isolators. An Overall Site Plan and Site Access Routes are attached in Appendix I. There is a concrete service duct / road housing steam, gas and water pipes that runs through the centre of the site which has a 6.5 tonne weight restriction applied. This may have an impact upon this project.

Waste materials will be stored in covered skips prior to removal from site. PHE operate a waste segregation policy and the successful contractor will be expected to segregate waste

for disposal. (skip and storage of waste material locations to be agreed on site). The contractor shall submit a site waste management plan which will be agreed with th PHE

It is essential that all vehicular and pedestrian access ways are kept clear at all times, owing to the restricted nature of the access, especially for emergency service vehicles. Special care must be exercised when traffic enters and leaves the site.

There is a possibility that other proposed construction works will be undertaken in the surrounding area, during the course of this project, that will have an impact on the execution of these works.

There are no schools, housing or similar properties in the vicinity of the site.

3.2 Existing Site Services

There are no overhead services located within the access route and external area of the site of works. However the contractor should be mindful of existing underground foul and storm water drains. There are various other services fixed to the building wall in the location of the proposed access scaffold.

4 CLIENT'S CONSIDERATIONS AND MANAGEMENT REQUIREMENTS

4.1 Structure and Organisation

All communications with PHE shall be via the Principal Contractors nominated representative to the Client's representative, Mr. R. Puddick.

4.2 Safety Goals

The PHE Health & Safety person responsible for construction works on site will make regular inspections during the works to establish conformance with the Site Rules and both local and regulatory Health & Safety requirements.

Subject to these findings a non-compliance notice may be issued requiring corrective action(s). The issue of three non-compliance notices could result in the contractor being removed from site.

The Principal Contractor is required to complete the Health and Safety Questionnaire for Principal Contractors/Contractors attached in Appendix V. This will not be necessary if it has been completed within the last 2 years, or there are no significant changes to the contractor's circumstances.

4.3 Site Access

The site is accessed through the main gate off of Manor Farm Road, that incorporates barriers and other security features. See appendix I.

All visitors requiring access to PHE must be notified to security 24 hours in advance of their appointment and on arrival are required to report to security prior to entering the site. Visitors are issued with a 'red' pass and must be escorted at all times by a PHE employee/agent.

4.4 Permits and Authorisation Requirements

A Permit to Work (PTW) system is in operation across the PHE site for the following activities:

- 'S1' Permit prior to any works in, or associated with the laboratories and plant rooms.
- Hot Trades e.g. welding etc.
- Work in confined spaces
- Working with pressurised systems

- Electrical works
- Excavations
- Working on roof spaces (at height)
- Working in plantrooms controlled by PHE's services maintenance contractor (Emcor Services). (S1 Permit)
- Isolation of services certification

The Principal Contractor's PTW procedures shall be reviewed and agreement reached regarding the application of PHE's PTW requirements.

4.5 Emergency Procedures

The Principal Contractor shall instigate an evacuation procedure to ensure that:

- A register of site personnel is maintained at all times.
- The existing egress routes through emergency exit doors are maintained throughout the works.
- In the event of an alarm, evacuation is immediate from all areas within the project limits.
- An independent roll call is carried out in the event of an emergency evacuation.

Muster arrangements will be agreed and designated in advance with PHE, but will be adjacent to the east boundary fence. Assembly point 1 is designated to all contractors and visitors to site.

In the event of an emergency, the Principal Contractor will call Ext **444** and advise the details concerning the event.

4.6 First Aid

The Principal Contractor will be responsible for First Aid provision in relation to the construction works, as required by The First Aid at Work Regulations 1981.

4.7 Site Rules

The Principal Contractor's proposals for management of the construction site shall ensure adherence to the *'Health, Safety and Security Guidance Notes for Contractors Carrying Out Work at PHE- Porton Down'.* This document is included in Appendix II.

In particular, the Principal Contractor shall note that smoking is strictly prohibited in any building or area within the security fence, other than the designated smoking shelter adjacent to the site incinerator building. Vaping shelters are also provided.

4.8 Site Inductions

All personnel requiring to work at the PHE site must complete the PHE and Facilities Management Site Inductions after which they will be issued with a 'green' contractors pass allowing restricted access to the site. Personnel who have completed the induction do not require an escort. Site inductions are normally held each day 09.00 hours and last approximately 45 minutes.

The Principal Contractor will be responsible for carrying out inductions for all operatives specific to the construction works including access to and use of the area designated for the project.

4.9 Working Hours

Normal contractor working hours are 07.30 to 17.00 Monday through Friday. Prior arrangements need to be made if contractor working is required outside of these hours and at weekends and bank holidays.

4.10 Accident and Incident Reporting

Any dangerous occurrence or condition and all incidents resulting in injury or damage to property shall be reported to the Client's representative. In accordance with The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR).

4.11 Project Area Access & Welfare

- Where possible, the contractor's storage and work area (to be agreed on site) should be used for offloading and storage of construction material prior to being taken into the works area / removed off site. All storage and works compounds / areas must be made secure with perimeter fencing i.e. Heras type fence, ply board hoardings.
- Maintenance staff and Operational Staff will require regular access to existing buildings and adjacent plant room to complete routine maintenance operations on a 24 hour basis.
- Every effort is to be made by the contractor to fully segregate the construction area from those areas where PHE personnel are at work. Access is to be prevented between areas by physical barriers, although some emergency egress may be required.
- PHE personnel must not enter the segregated construction areas without being accompanied by a representative from the Principal Contractor.
- Access for emergency service vehicles must be maintained at all times.
- The Principal Contractor will be responsible for the site security of his goods, materials and tools.
- Contractor's personnel are permitted to use the main PHE canteen (after removing dirty outer work clothes) as well as using available toilets and changing facilities (within contractor's compound). Contractors are not permitted to use the PHE canteen between 1230 and 1330 hrs. for sit down meals, but may purchase take away meals during this time. Hi-Vis and dirty work wear shall not be used in the PHE canteen. The use of these facilities will be under continuous review and will be withdrawn if abused. The Principal contractor is to provide all other welfare facilities. Eating and drinking is not permitted on the site, of the works including vehicles, except for in designated welfare facilities.
- Access to the works area will be via the main road into the site. (See appendix 1). Contractor's vehicles must be parked in designated parking areas and not adjacent to existing buildings. Car park 7 is a designated parking area for contractor vehicles. Unloading will be permitted adjacent to the works, after which vehicles must be parked in car park 7. All emergency access routes and doors must be kept clear at all times.

5 PROJECT LIAISON PROVISIONS

5.1 Meetings

Regular on site project review meetings will be held by the Client's representative where the Principal Contractor will be required to report on progress against programme, budget and all issues related to Health and Safety.

5.2 Design Changes

The following procedure is to be utilised for dealing with substantial design changes:

- No major design changes shall be undertaken before submission of a Designers report as required by Regulation 9 of the *'Construction (Design and Management) (CDM) Regulations 2015'.*
- The Principal Designer shall be provided with the Designers report or Principal Contractors proposals in reasonable time before a commitment to the design change is made.
- The Principal Contractor shall notify the Principal Designer / Designer immediately that it becomes apparent that substantial design changes will or may prejudice his resources.

5.3 Communications

The Principal Contractor shall notify the Principal Designer of all modifications to the approved design and resultant changes to the Health and Safety Plan. The following procedures are to be followed by the Principal Contractor:

- Design work shall not be undertaken unless evidence has been submitted that the person appointed to complete the work has the competence and resources necessary. Any sub-contractors shall provide evidence to the Principal Contractor of their compliance with Regulation 9 of the CDM Regulations 2015.
- The Principal Contractor shall take all steps to reduce significant risks and hazards communicate the additional steps and precautions necessary for dealing with them.
- The Principal Contractor shall, in writing, notify all sub-contractors (including self employed) of the following:
    - The Principal Contractor
    - The Principal Designer
    - The Designer
    - The contents of both Health & Safety Plans
    - All notices as required by Regulation 13 & 14 of the CDM Regulations 2015.

6 ENVIRONMENTAL RESTRICTIONS AND EXISTING ON-SITE RISKS

6.1 Boundaries and Access

Refer to Section 4 above.

6.2 Adjacent Land Uses

The construction area is located entirely within the PHE site. There are no adjacent land uses which are expected to have any impact on the works.

6.3 Existing Storage of Hazardous Materials

There are no known hazardous materials within the area of work.

If during the course of the works an unknown substance or material is discovered, works must cease and the client's representative notified immediately.

6.4 Location of Existing Services

All service positions are to be identified prior to commencement of work and if required are to be isolated prior to associated / adjacent work. This to be carried out in conjunction with the site maintenance contractor, who will then issue a proof of isolation certificate before works commence. There are no overhead services. Underground services are present. Refer also to 3.2 previously and appendix IV.

6.5 Ground Conditions

Outside storage areas and access roads are generally of tarmacadam / concrete surface.

6.6 Existing Structures

There are no existing structures relevant to this project.

6.7 Asbestos Including Results of Surveys

Asbestos is unlikely to be found on a green field site however asbestos is present in many areas within the PHE site and its known presence and locations are recorded in the asbestos register. PHE have a contract in place for the removal / containment of all asbestos. However, areas which may be otherwise inaccessible and exposed by construction work may contain asbestos. The Principal Contractor shall instigate a procedure for reporting all asbestos containing materials to the Client's representative. PHE will arrange for removal of the asbestos using its appointed specialist contractor. It is known to exist in many of the service voids in the main building (01), any work carried out in such locations should be approached with care after referring to the asbestos register**.**

6.8 Contaminated Land Including Results of Surveys

Not applicable.

6.9 Existing Structures Hazardous Materials

All known hazardous materials will have been removed from the proposed area of work prior to commencement of works, and the work area cleaned.

6.10 Health Risks Arising From Client's Activities

Traffic and pedestrian movements are ongoing throughout each day. Care should be taken with this in mind.

The area being used for this project is grassed at his time and has not been built upon previously

7 Significant Design and Construction Hazards

7.1 Design Assumptions and Control Measures

- When working at height, appropriate scaffolds or platforms will be used complete with appropriate hand railing and kick boards. Fall arrest restraints shall be worn when working on unprotected roofs.
- Lifting of and movement of heavy equipment into/out of and within the building shall be done using the correct type and rating of certified lifting gear/craneage in accordance with H&SE Codes of Practice. Personnel responsible for such equipment shall be appropriately certified.
- Hot work, including welding, soldering and brazing of pipework may be carried out. Hot work permits will only be issued when suitable fire protection devices are available locally. Appropriate face and body protection must be worn and adequate protection must be provided to prevent arc eye on others.
- Temporary lighting will be used in areas where general lighting is inadequate for installation procedures.
- The release of grinding debris and construction dust must be kept to a minimum; the Principal Contractor shall advise PHE how this will be achieved.
- Interruption to the fire alarm system may be required to prevent false activation. The Principal Contractor is to include for temporary provision.
- Construction noise is to be kept to a minimum, particularly when working within and adjacent to laboratories.
- The Principal Contractor will be responsible for the safety, control and management of the Construction areas and shall advise PHE how this is to be achieved.

7.2 Arrangements for Co-Ordination of On-Going Design Work and Handling Design Changes

See Section 5.2.

7.3 Information on Significant Risks Identified During Design (Health and Safety Risks)

See Section 7.1. Contractor / Designer to identify following design process.

7.4 Materials Requiring Particular Precautions

All construction materials shall be subject to the limitations in use and precautions advised as part of the COSHH data supplied by the manufacturer.

All packing and waste materials will be removed from site as and when produced to maintain good working conditions and reduce fire hazards. PHE operates and encourages segregation of waste disposal and encourages contractors to do likewise.

8 Health and Safety File

The Principal Contractor is required to provide the data identified below when assembling the Health and Safety file:

Section A: General Project Information

- A brief description of the work carried out.
- Details of project parties.

Section B: Residual Risk Information

- Residual hazards and how they have been dealt with (for example, surveys or other information concerning asbestos, contaminated land, water bearing strata, buried services).
- Any hazards associated with the materials used (for example, hazardous substances, lead paint, special coatings which should not be burnt off).

Section C: Design Information

- Key structural principles incorporated in the design of the structure (for example bracing, sources of substantial stored energy – including pre- or post- tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there.

Section D: Operating and Maintenance Information

- Information regarding the maintenance, removal or dismantling of installed plant and equipment (for example lifting arrangements).
- Health and safety information about equipment provided for cleaning or maintaining the structure.

Section E: As Built Records

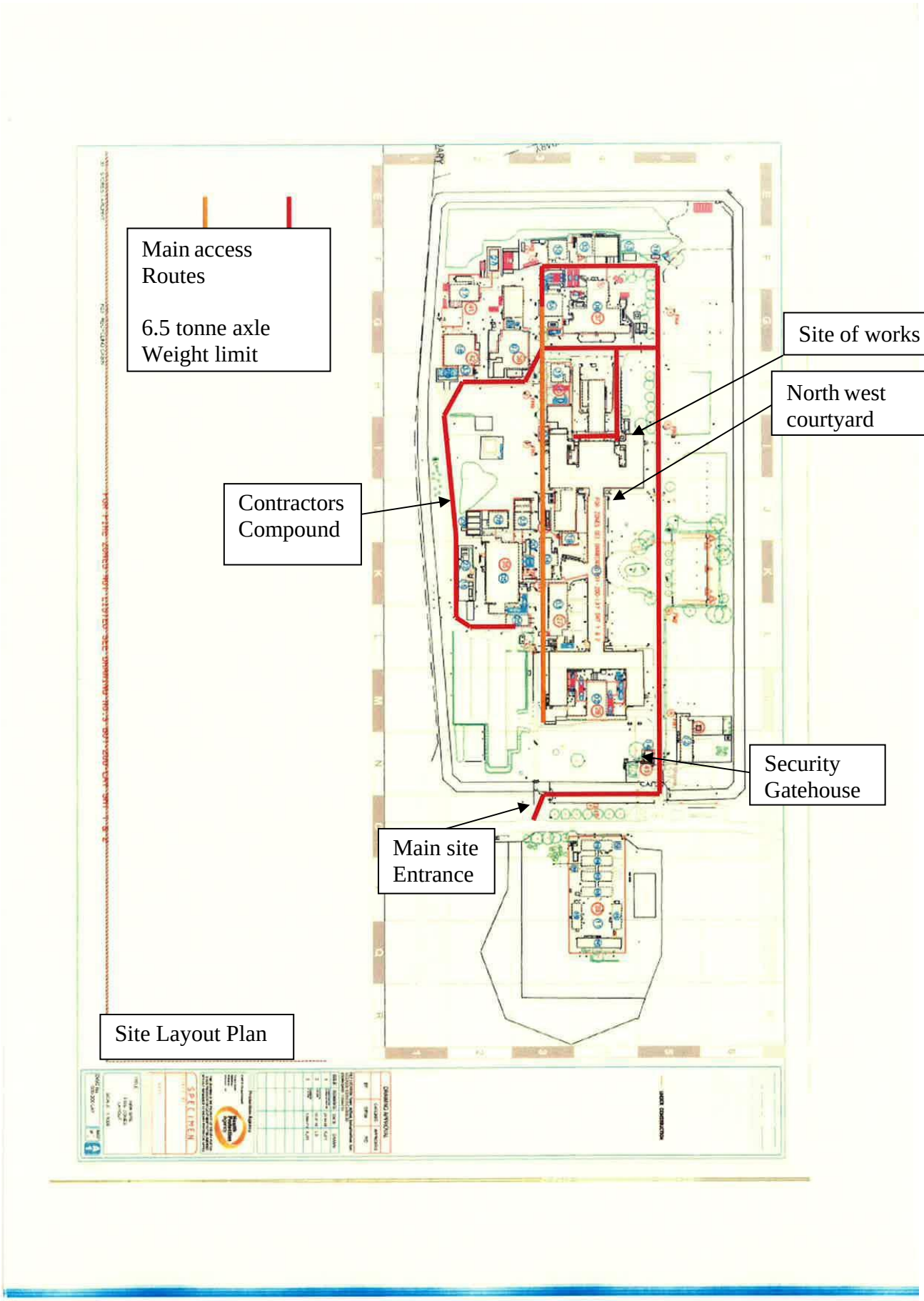
- The nature, location and markings of significant services, including fire fighting services.
- Information and as-built drawings of the laboratory, its plant and equipment (e.g. the means of safe access to and from service voids, fire doors and compartments

Section F: Appendices

- Directory of materials used in the project, including suppliers and manufacturers addresses and contact numbers.
- COSHH assessments / safety data sheets of materials used in the construction of the project.

APPENDIX I

OVERALL SITE PLAN and SITE ACCESS ROUTES



APPENDIX II

HEALTH SAFETY & SECURITY GUIDANCE NOTES FOR CONTRACTORS CARRYING OUT WORK AT THE HPA – PORTON DOWN

HEALTH, SAFETY AND SECURITY GUIDANCE NOTES FOR CONTRACTORS CARRYING OUT WORK AT PHE– PORTON DOWN

1.0 DEFINITIONS

"Contractor" means any person, firm or company, or any sub-contractor of such person, firm or company or any employee or agent of either, who or which undertakes construction and/or maintenance work and has access to PHE-Porton Down site for the purpose of performing work or services for PHE-Porton Down

"Construction and maintenance work" includes building, civil engineering, installation, maintenance and servicing of all electrical, plumbing, refrigeration, mechanical plant systems and equipment (whether fixed or loose), decoration, minor repairs, servicing, maintenance to the buildings and site as required by PHE-Porton Down.

"Project Manager" means the responsible person authorised to act on behalf of PHE-Porton Down in the administration of the works being carried out.

2.0 **General**

2.1 These Guidance Notes are provided in order to ensure that

Contractors are aware of their statutory duties on Health and Safety and that by signing this note, they recognise the importance of ensuring compliance with current legislation in the carrying out of their activities and will comply with the site rules contained herein.

2.2 PHE-Porton Down expects a high standard of safe working from its Contractors to ensure the safety of all those working and visiting the site and the Contractor will be expected to contribute to maintaining a safe working and operational environment. Contractors are recommended to acquaint themselves with all construction related best practice guides published by the HMSO and National Federation of Building Trades Employers to which they must comply.

2.3 If any Contractors are unsure of their legal obligations or what particular Health and Safety measures need to be adopted to ensure the safety of people and the operational environment, they must seek the advice of the Project Manager prior to commencing an activity.

2.4 Contractors must retain valid insurance's to meet the requirements of the Employers Liability (Compulsory by the Contract and will be asked by the Project Manager to provide evidence of validity.

2.5 Contractors must retain a valid Contractors All-Risks insurance policy to a value as determined by the contract and will be asked by the Project Manager to provide evidence of validity.

2.6 In accordance with the requirements of the Health and Safety at Work Etc, Act 1974, Contractors are required to provide a Policy Statement on Health and Safety, their responsible person for safety and methodology for ensuring compliance with the policy. Full details must be made available for inspection by the PHE-Porton Down. For minor Contractors (less than 5 employees), a written policy is not mandatory but they must be able to satisfy the Project Manager that they will perform their duties in a safe and workman-like manner and will take all necessary precautions to ensure the safety of all the people at the site.

2.7 The Contractor must prepare method statements and risk assessments to show how he proposes to carry out the works and what arrangements are in place to minimise any Health and Safety risks and work that is likely to present potential hazards. Production of this documentation will not absolve the Contractors from their overall Health & Safety responsibilities

3.0 **Site Access**

3.1 Contractors must give at least 24 hrs notice in advance of their visit to the Project Manager who will arrange for a pass to be issued upon arrival at the Security Gatehouse. At the discretion of the Project Manager, either a Red for an Escorted Contractor or Green for an Unescorted Contractor will be issued. The passes carry a barcode that ensures a roll call register can be

produced in the event of an evacuation. The muster point for all Contractors is No 1, adjacent to the Security Gatehouse, where passes will need to be swiped in the event of an evacuation.

3.2 Contractor Passes must be worn at all times. For specific areas, the Contractor will be asked to submit a Security Questionnaire in advance of their first visit to site.

3.3 All Contractors must be signed in and out of the site daily at the Security Gatehouse.

3.4 Contractors with a Red pass must be escorted at all times; those with a Green pass need not be accompanied.

3.5 Green pass holders will be required to attend a short PHE Site Safety Induction Course that will be arranged by the Project Manager.

4.0 **Work Area Access**

4.1 Contractors must not stray from their work area or enter any other area or room without the express permission of the Project Manager. On no account must the Contractor enter rooms exhibiting Biohazard or Radioactive warning signs unaccompanied.

4.2 Access to certain Equipment/ Areas including laboratories, plant rooms, service floors and roofs, is controlled via 'S1 Form' (Control Transfer Document). Further to this, certain specific activities that may form part of the contracted work require a 'Permit to Work'. Both the 'S1 Form' and 'Permit to Work' will be arranged by the Project Manager, (refer to 19 for details).

4.3 Contractors must make themselves aware of emergency evacuation procedures and listen for broadcast messages. Contractors must comply with emergency instructions issued.

5.0 **Compliance with Statutory Regulations**

Contractors are required to carry out their work in compliance with all Health and Safety Legislation, the following although not exhaustive, are the most applicable:

The Health and Safety at Work Etc, Act 1974

The Management of Health & Safety at Work Regulations 1999

The Construction (Design and Management) Regulations 2015

The Health & Safety (Consultation with Employees) Regulations 1996

The Health & Safety (Training for Employment) Regulations 1990

The Working Time (Amendment) Regulations 2002

The Safety Representatives and Safety Committees Regulations 1977

The Electricity at Work Regulations 1989

The Low Voltage Electrical Equipment (Safety) Regulations 1989

The Electrical Safety, Quality & Continuity Regulations 2002

The Electrical (Overhead Lines) Regulations 1970

The Control of Asbestos at Work Regulations 2002

The Asbestos (Licensing) Regulations 1998

The Asbestos Products (Safety) Regulations 1987/1999

The Asbestos (Prohibition) Regulations 1992

The Control of Substances Hazardous to Health 2004

The Dangerous Substances (Notification and Marking of Sites) Regulations 1990

The Chemicals (Hazard Information and Packaging) Regulations 2005

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2005

The Regulatory Reform (Fire Safety) Order 2005

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

The Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1993 (amended)

The Control of Pollution Amendment Act 1989

The Control of Pollution Regulations 2001

The Health and Safety (First Aid) Regulations 1981

The Dangerous Substances & Explosive Atmosphere Regulations 2002

The Gas Safety (Installation and Use) Regulations 1998

The Pressure Systems Safety Regulations 2000

The Control of Explosives at Work Regulations 1991

The Control of Major Accident Hazards Regulations (Amended) 2005)

The Confined Spaces Regulations 1997

The Supply of Machinery Safety Regulations (Amended) 1994

The Lifting Operations and Lifting Equipment Regulations 1998

The Health & Safety (Safety Signs and Signals) Regulations 1996

The Control of Lead at Work Regulations 2002

The Provision and Use of Work Equipment Regulations 1998

The Control of Noise at Work Regulations 2005

The Environment Act 1995

The Environmental Protection Act 1990

The Clean Air Act 1993

The Duty of Care Regulations (Amendment) 2003

The Waste Management Regulations (Amended) 2005

The Special Waste Regulations (Amended) 2004

The Controlled Waste Regulations 1992

The Hazardous Waste Regulations 2005

The Builders Skips (Markings) Regulations 1984

Personal Protective Equipment at Work Regulations 1992

Management of Health and Safety at Work Regulations 1999

Workplace (Health, Safety and Welfare) Regulations 1992

The Manual Handling Operations Regulations 1992

The Working at Height Regulations 2005

6.0 **Reporting of Injuries, Diseases and Dangerous Occurrences**

6.1 Contractors must fully comply with the requirements of RIDDOR and advise the Project Manager immediately of the circumstances of any injury or dangerous occurrence which has occurred in the course of carrying out works. An Incident Report Form, obtainable from the Project Manager, must be completed.

6.2 If any injury or dangerous occurrence has been notified to the HSE, the Contractor must notify the Project Manager and PHE's Construction Safety Advisor immediately.

7.0 **Personal Protective Equipment**

7.1 Contractors must provide adequate and suitable personal protective equipment appropriate to the activity being undertaken and take all necessary action to ensure their use, which should be clearly stated within the method statement. This additionally applies to all visitors to the site works.

8.0 **Fire Precautions**

8.1 Contractors must be fully aware of PHE Porton's emergency procedures, fire precautions, fire alarm systems, means of escape and broadcast message system. Fire doors must not be obstructed or wedged open under any circumstances. (Green pass holders will have received Safety Induction Training upon arrival).

Smoking is strictly prohibited within any of PHE-Porton's buildings and is permitted only in designated smoking areas.

8.2 At the end of the working day, or at the completion of a particular activity, the Contractor must appoint a responsible person to ensure that any naked lights, burners and the like are extinguished and all electrical apparatus is switched off, unless the nature of the work demands it should be kept on.

8.3 The Contractor must ensure that there are adequate means of fire fighting equipment in serviceable condition within the work area and that these are clearly identifiable.

8.4 The use of highly flammable liquids, petroleum spirit, liquefied petroleum gas, oxygen, naked lights, blow torches, burners, welding, flame and arc cutting and any equipment that produces sparks is strictly prohibited without the issue of an appropriate Hot Work Permit, arranged through the Project Manager.

8.5 Storage of highly flammable liquids, petroleum spirit, liquefied petroleum gas, oxygen and the like is strictly prohibited within any of the buildings on the site. The Project Manager will allocate storage areas as required. All spills/leaks to be reported immediately to the Project Manager.

9.0 **Storage and Use of Substances Hazardous to Health**

9.1 The Contractor will fully comply with the requirements of COSHH. All data sheets and the register of substances will need to be issued to the Project Manager prior to any substances being delivered to site.

9.2 Contractors must provide a risk assessment and method statement for all work involving hazardous substances and ensure their operatives are fully trained in their use.

10.0 **Electricity**

10.1 Contractors must comply with the Construction (Health, Safety & Welfare) Regulations 1996, the Electricity at Work Regulations 1989 and the current edition of the Institution of Electrical Engineers Regulations for the Electrical Equipment of the Buildings.

10.2 All portable electrical equipment and apparatus used in carrying out construction work including temporary lighting must be operated at 110 volts by means of a mains isolation transformer with secondary winding centre tapped to earth. The Contractor must ensure that all portable electrical appliances are regularly tested (PAT) and is able to provide proof to the Project Manager upon demand.

10.3 All temporary cables, particularly where they cross people or vehicle thoroughfares must be appropriately secured, marked with hazard tape, protected by suitable buffers or if at high level, duly marked with warning screening and signage.

11.0 **Scaffold and Temporary Access**

11.1 All fixed scaffold, mobile scaffold towers and ladders must comply with the Working at Heights Regulations 2005. All such equipment must be properly secured, operationally sound and fit for the intended purpose. The Contractor must be able to provide evidence, if requested, that any such equipment has been inspected to confirm its safe for use, including the maintenance of a ladder register.

11.2 All scaffolds must be inspected, certificated and tagged prior to use. A Register of Inspection of Scaffolds must be available for inspection by the Project Manager or HSE.

12.0 Lifting Operations – Hoists and Cranes

12.1 All lifting operations must be carried out in compliance with the Lifting Operations & Lifting Equipment Regulations 1998.

12.2 Examination Certificates of lifting appliances, ropes, pulleys and chains etc. must be made available for inspection by the Project Manager.

12.3 Contractors must ensure that the ground conditions permit the safe operation of craneage.

13.0 Excavations

13.1 Contractors must satisfy themselves of the nature of the ground conditions and information in respect of underground services before commencement of work.

13.2 All excavation work must comply with the requirements of all current legislation, ensuring all excavation work is suitably fenced off and protected to prevent access by unauthorised people.

13.3 All excavations must be inspected and duly registered using Form F91 (Part 1, Section B) register of Examination of Excavations.

14.0 Protection of Work Areas

14.1 The Contractor must ensure that all work areas are suitably screened off or secured to prevent unauthorised access, including the provision of signage to warn of any potential hazards.

15.0 Machinery Guards

15.1 Contractors must ensure that all dangerous parts of machinery used by them are operated with designed safety guards in place and operatives are trained in the use of such equipment.

16.0 Cartridge Operated Fixing Tools

16.1 Cartridge operated fixing tools can only be used with the permission of the Project Manager. Where permission is granted, these tools and their use must conform to the relevant British Standard and operated strictly in accordance with the manufacturers instructions. Cartridges must be securely stored when not in use and strictly in accordance with the Project Manager's instructions.

16.2 Operators, (who must be over 18 years of age) must be fully trained in the operation of such equipment.

17.0 **Noise and Environmental Pollution**

17.1 Contractors must carry out their work in a manner having due regard to minimise disturbance to adjacent operational areas, this includes noise and dust and as such will be required to submit a Method Statement to the Project Manager as to how he proposes to minimise disturbance.

17.2 In particular, the Contractor must comply with:

Control of Pollution Act 1989 (Amended) and BS 5228

Code of Practice for Noise Control on Construction and Demolition Sites 1975

Environmental Protection (Duty of Care) Regulations 1991

Noise at Work Regulations 1989

Control of Noise at Work Regulations 2005

18.0 **Asbestos**

18.1 The Project Manager will provide the Contractor with information concerning the existence of asbestos within the work area from the Asbestos Register. If asbestos is known to be present, the Project Manager will issue instructions to deal with the matter.

18.2 If asbestos is not found until after the work has started, Contractors must notify the Project Manager and cease work immediately. The Project Manager will issue further instructions.

19.0 **Access Control and Work Permits**

19.1 Any activity on site that may put people or the process/environmental operations at risk are controlled by a strict Permit to Work System**.** Access to risk or hazardous equipment or areas, including Plant Areas, Roof Areas and Laboratories, is controlled by an ‘S1 Form’ (Control Transfer Document).

19.2 The Contractors must be in possession of a valid Permit to Work, arranged by the Project Manager and detailed below:

Working in Confined Space

Working at Height

High Voltage Electrical Systems

Low Voltage Electrical Systems

Hot Works

Excavation

Pressure Systems

Service Isolations

Fire and Security Installations

20.0 **CDM Regulations**

20.1 The construction work falls within the remit of the CDM Regulations, the Contractor must fully comply with their legal obligations, prepare method statements and risk assessments within a timely manner for inclusion in the Health & Safety File and fully co-operate with the Client and the appointed Principal Designer .

21.0 **Contractors Competency**

21.1 Contractors will be expected to provide suitably trained and experienced operatives for the activity/task in hand. Evidence of such competency will need to be provided, upon request, to the Project Manager.

22.0 Considerate Contractor Scheme

22.1 Whilst not compulsory, Contractors are recommended to subscribe to the “Considerate Contractors Scheme” and abide by their code of conduct.

23.0 Waste

23.1 The Contractor must ensure all surplus materials are appropriately stored in a designated area and receptacles suitable for the purpose. Carting away off site must be in accordance with all current legislation. Waste segregation is to be encouraged

23.2 On no account must surplus materials and packaging be discarded around the site.

23.3 Designated waste storage areas must be kept tidy at all times.

24.0 Welfare Facilities

24.1 Eating and drinking are forbidden on the site, except in clearly defined rooms and areas.

24.2 Contractors may use the staff canteen facilities, at agreed times, as long as Hi-Vis, overalls, dirty clothing or boots are not worn in the canteen.

24.3 Drinking water must be obtained from the canteen or other clearly identified source. It should not be taken from any other source.

24.4 Contractors must not use the PHE staff toilets. Contractors working externally may use the toilets situated to the south of the Boiler House.

24.5 Smoking is strictly prohibited other than in a designated external area on the Employer’s site. This regulation is rigidly enforced and any breach of this policy will involve the offender being removed from the site

24.6 Contractors must make their own arrangements regarding first aid provision as required by the Health & Safety (First Aid at Work) Regulations 1981.

24.7 Emergency first aid for life threatening situations is available from the Occupational Health Group on the ground floor of the Main Building. In any event, emergencies need to be advised on Ext 444

25.0 Prohibited Articles

25.1 The use of cameras and binoculars anywhere on the site is not permitted without prior authorisation from the Chief Executive.

25.2 Animals must not be brought on to the site, including being carried in vehicle cabs.

25.3 Radios, CB radios, cameras and personal stereos.

25.4 Mobile phones with digital cameras are not permitted on site. Other mobile phones are permitted on site but must not be used within the buildings or canteen.

26.0 Vehicles

26.1 Contractors vehicles must be parked in Car Park 7 (Contractors car park) and are not permitted to park in any of the perimeter roads unless unloading. The roadway to the south, adjacent to the canteen, with red/white barriers at each end, has a weight restriction of 750kg. Access will only be permitted with approval from the Project Manager.

26.2 All Contractors deliveries and storage areas will need to be agreed at the start of a contract with the Project Manager.

27.0 Audits/Non-Compliance

27.1 All work areas and sites will be liable to a Site Safety Audit undertaken by PHE without prior warning given to the Contractor. The PHE will issue Non-Conformance Notices where the Contractor is in breach of Health & Safety Regulations and the Contractor will be expected to rectify any breaches in accordance with the notice issued. Failure to rectify within the period allocated may require the Contractor to cease operations and/or leave site.

28.0 Use of HPA Telephone System

28.1 Contractors are not permitted to use the PHE telephone system for outgoing external calls, without prior agreement.

29.0 Emergencies

Dial 444 FOR ALL EMERGENCIES ON SITE

(1444 from Pilot Plant)

ACCIDENTS SHOULD IMMEDIATELY BE REPORTED TO THE PROJECT MANAGER.

CONTRACTORS MUST ACQUAINT THEMSELVES WITH THE FIRE ALARM SYSTEM AND EVACUATION PROCEDURES

29.0 Typical Warning Signs (see 4.1)

Biohazard

Radiation

DATA PROTECTION ACT 1998

The above information will be held on file at PHE Porton Down. It will be used only for the purpose for which it was provided and will not be passed to any third parties.

Copy held by
Project Manager &
Contractor

31.0 **The Site Safety Agreement**

I,_____, being the authorised representative of_____, appointed to carry out works described below:

Insert brief description or project title

I declare that I am fully aware of the requirements of the Health & Safety at Work Act 1974 and of all the Health and Safety Regulations that may affect the conduct of these works.

I further acknowledge that I have been advised of the rules and regulations governing Health and Safety, Security and General Conduct at the PHE-Porton Down site.

I will accept full and complete responsibility for ensuring that all our appointed workers, sub-contractors and visitors employed or involved in the contract works will receive full information and training to ensure full compliance with all Health and Safety legislation.

I will ensure the appointed Site Manager responsible for the execution of the contract works will notify the Project Manager of any activity, hazard or hazardous operation and materials that may create risks or hazards to other people or operations on the site.

I acknowledge that I and the Contractor that I represent, will remain fully and absolutely responsible for the observance of all current Health and Safety legislation and full compliance to these Guidance Notes by our employees and subcontractors of the Contractor.

Signed_____ Date_____

Print Name

_____

Employed as_____

By_____ Of

Contractor Address_____

_____

Home Address

APPENDIX III

F10 NOTIFICATION TO H.S.E.

(T.B.A.)

APPENDIX IV

DRAWING REGISTER
(To be completed by Principal Contractor)

Document Number	Issue No/Date	TITLE
TW-PLAN-01	1	Preliminary Test ward

TW-PLAN-01 -
Preliminary Test War

APPENDIX V

HEALTH AND SAFETY QUESTIONNAIRE FOR PRINCIPAL CONTRACTORS/CONTRACTORS

Public Health England

Health Protection Agency (Porton Down)

HEALTH AND SAFETY QUESTIONNAIRE FOR PRINCIPAL CONTRACTORS/ CONTRACTORS

This questionnaire will be used to assess the suitability of the tendering contractor for appointment as Principal Contractor or Contractor under Regulations 4, 5 and 8 of the Construction (Design and Management) Regulations 2015

Why this is important - PHE / Porton's approach to health, safety and well-being
The health, safety and well-being of everyone on site is of paramount importance. We have a policy which requires excellent standards and best practice to be adopted. We also have introduced a new set of health and safety values and behaviours (attached) and you need to be aware of these and commit to these standards.

Purpose of the questionnaire
It is the policy of PHE/Porton to seek assurance from everyone on site that they adopt high standards of health safety and well-being. We want to ensure that everyone on site is safe, healthy and well and that arrangements for health and safety is effective to ensure they remain so. The person with overall responsibility for health and safety should sign the declaration. 'You' refers to your organisation. If you cannot answer the questions as required, please confirm the actions that you will take to be able to do so and when.

If Yes / No answers, tick as appropriate, for written responses please use separate sheet should more space be required ensuring question number is stipulated.

Company Details

Name:

Address:

Tel No: Fax No:

Email Address:

No	General Information	PHE Use Only
1	Name of person specifically responsible for health and safety within the company:	

No	General Information	PHE Use Only
	Name: Title: Safety qualification of the above person:	
2	Does your company employ Health & Safety Consultants? Yes / No **If yes please give names and details**	
3	Number of employees in your company (including office staff trainees and apprentices) No:	
4	Does your company have a written Health & Safety Policy? Yes / No **If yes, please enclose a copy of your current document, including a detailed statement of organisation and arrangements, also specify issue/revision/date, etc** If no, please state why not:	
5	Are you aware of, and comply with, relevant Health & Safety legislation? Yes / No	
6	Do you regularly check health and safety standards and conditions in practice? Yes / No	
7		

No	General Information	PHE Use Only
	How does your policy work in practice and help create a positive ”H&S culture” Please give brief description:	
8	Who within your company is responsible for writing/updating the health and safety policy? Name: Title: How is the policy communicated to your employees?	
9	Do you have effective arrangements for communicating health and safety matters. YES / NO **If yes please give brief description**	
10	Have operatives that undertake work for you received any formal health and safety training. **Please supply examples**:	
11	Please provide copy of valid Employers Liability Insurance	
12	How do you assess your company’s health and safety performance	
13	How do you report and record accidents and incidents	

No	General Information	PHE Use Only
14	How many accidents did you report to the Health & Safety Executive in: Current Year: Last Year: Previous Year: Previous Year:	
15	Please enclose samples of written risk assessments relevant to the work your company is proposing to undertake for Public Health England	
16	Have you arrangements in place to review and adjust risk assessments if a worker has special needs, a disability, learning/language difficulty or is a young person. Yes / No	
17	Do you review risk assessments to take account of changes/accidents/incidents? Yes / No	
18	Do you have clear standards/procedures covering who does, what and when?	
19	Has your company ever been prosecuted under health and safety legislation? Yes / No **If yes please give brief details**:	
20	Has your company been served with any improvement or Prohibition Notices regarding health and safety in the last 4 years?	

No	General Information	PHE Use Only
	Yes / No **If yes please give brief details**:	
21	What measures do you take to ensure only authorised access to the working area is maintained?	
22	How does your company ensure that sub-contractors comply with health and safety requirements and legislation?	
23	Do you carry out regular site safety inspections? Yes / No a) How Frequently? b) Who is responsible? c) Who is responsible for action? d) Please provide a copy of your last inspection report?	
24	How do you ensure plant/equipment/vehicles are kept in a satisfactorily maintained order? Do you have a maintenance/safety check procedure policy? Yes / No How do you ensure any necessary actions are carried out?	
25	How do you ensure that all on-site electrical equipment is maintained and complies with the Electricity at Work Regulations 1989?	

No	General Information	PHE Use Only
26	Does your company have an on-site induction course for all new staff? Yes / No **If yes, please provide brief details and training practices**:	
27	Will all personnel on the proposed project have had Construction Skills Certification Scheme (CSCS) or similar training/accreditation? If not, what safety training is undertaken? **Please supply examples**	
28	Have your on site management team received safety training for supervision of on-site personnel and activities. (CSCS, CITB Site Safety Managers 4/5 day Course)? Yes/No **If yes, please provide details**	
29	Do you periodically audit your health and safety arrangements? Yes/No	
30	Do Senior Managers review performance, E.G. Annually, and identify improvements? Yes/No	
31	Do you have an annual health and safety action/development plan? Yes/No	
32	Is there a commitment to continually raise health and safety standards? Yes/No	

No	General Information	PHE Use Only
	CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015	
33	Does your company have a member of staff responsible for the implementation of CDM Regulations? Yes / No If yes, please provide: Name: Title: Qualifications/Experience: If no, how do you ensure that you comply with the regulations?:	
34	**Does your company have the resources to perform the duties of the Principal Contractor in accordance with the CDM Regulations 2015?** Yes/No **If yes please provide examples of similar contracts undertaken**:	
35	Does your company have the resources to carry out design work in accordance with the requirements of the CDM Regulations 2015? Yes / No **If yes what experience do your designers have**:	
36	Do you have arrangements for ensuring and monitoring the occupational health of your workers including having occupational health support?	
37	Do you have adequate first aid (personnel and materials) arrangements for your workers?	

No	General Information	PHE Use Only
38	Do you have effective arrangements for the consultation and participation of your employees and workers in health and safety matters YES / NO **If yes please give brief description**	
39	Can you confirm you will make all your employees and workers on site aware of our values and behaviours? YES / NO	
40	Is there any health, safety or welfare issue connected with your proposed works that you do not understand or want clarifying YES / NO **If yes please give details**	

Information requested in bold lettering must accompany this submission. Failure to do so will jeopardise the scoring and may preclude your company from working on the Porton Down Site

DECLARATION

I hereby confirm the information provided within this questionnaire is accurate and this company will accept the conditions as outlined in the event that work is undertaken for Public Health England

(This form should be signed by a Director or senior member of the company who should state his/her position)

Signature: _____ Position:

For and on behalf of:

Date:

(Please note: if any details change in respect of information provided within this questionnaire, your company is expected to notify Public Health England accordingly at the address shown below).

Safety Department
Public Health England
Porton Down
Salisbury
Wiltshire
SP4 0JG

HEALTH & SAFETY CHECKLIST FOR ENCLOSURES

Please tick to indicate that the following documents have been enclosed. If they are not enclosed, please give the reason why

Documents	Tick	Reason
Health and Safety Policy		
Samples of relevant Risk Assessment		
Procedures for Accident and Incident Reporting		
Examples of Site Inspection Reports		
Relevant Codes of Practice and Method Statements		
Samples of Health and Safety Training Records		
Environmental Policy Statement		
Waste removal procedure		
Licenses / Authorisations		
Standards Certificates		
Employers Liability Insurance		

For Official Use Only:

Reviewed By: _____
(name & signature)

Date: _____

H&S Questionnaire Score: _____

Comments:

Recommended for Approval ☐ Rejection: ☐

Public Health England

Values and Behaviours Health, Safe and Well-being

Your commitment, involvement and responsibilities

We want you to be safe, healthy and well. We also want you to be committed to health, safety and well-being as much as we are. We have 10 guiding principles or behaviours for everyone on site at MSPorton Down and for employees wherever you are working.

1. **Use your 'eyes, ears and nose'** at work, be alert and report anything that is of concern to you or that you feel could cause harm to you, a colleague or any other person connected with your work or PHE. This includes reporting any defects or damage to premises, equipment and facilities.

2. You are actively encouraged to **participate and contribute to improving standards** of health, safety and well-being and to put forward suggestions or recommendations to improve health, safety and well-being in relation to any work-related matter.

3. **Common sense is to be used** in relation to common everyday risks at work and your common sense used to control such risks. **You are empowered to politely challenge** anyone who is not working safely.

4. **You are required to co-operate** and follow the rules, policies, procedures, systems of work, controls, training, information and any instructions that you are provided with. This includes you correctly wearing any necessary personal protective equipment and / or clothing.

5. **You are empowered** to improve things and to put things right for yourself within your authority and for others as you see fit or is appropriate to the circumstances. But do not interfere with or damage anything which is provided for reasons of health, safety and well-being.

6. **Tell someone if you feel uneasy, unwell or unsafe** as soon as possible and **ask for help** and anything else you feel you need to improve health, safety and well-being including training, information or support.

7. **Your behaviour is of paramount importance** in all respects and in particular as regards health, safety and well-being. This includes how you respect and treat people at work and how you go about performing your daily duties.

8. **You must report any accident, incident, work-related ill-health or near miss** at work including to yourself, other colleagues, anyone on site and others connected to PHE business e.g. clients, customers, contractors, sub-contractors and visitors.

9. **Do not put yourself or anyone else at undue risk**. You need to be comfortable and competent in what you do at work and understand the risks in your job role, the environment you work in and the controls that are needed to prevent or reduce the risks to an acceptable level.

10. **Let your line manager, host or other appropriate person know of any medical or health condition you have,** if you need to take any prescribed drugs or anything else that may affect your health, safety or well-being.