

## *Project Management Plan*

- The use and maintenance of the ear defenders provided.

### **3.2.5 Reducing Vibration**

Methods that remove the risk of long-term exposure of hand held vibrating equipment by the implementation of non-hazardous processes e.g. by automation or mechanisation of the process.

Where this is not possible and hand held equipment is the only viable option Mansell will ensure that assessments are carried out to determine the safe periods of exposure of the equipment.

Mansell will additionally ensure that all sub-contract trades have Safe Systems of Work (S.S.O.W.) in place when using any plant or work equipment, this will include records of inspection, suitability for purpose, and training certification

### **CONTROL ARRANGEMENTS**

- Wherever possible Hilti tools and consumables (inserts) must be used when using Hilti tools, the "Hilti Product Selector Card" must be used to establish the maximum amount of work that can be carried out in an 8-hour period given a specific tool.
- Suppliers of Non-Hilti vibrating equipment (breakers, concrete vibro thickeners, whacker plates, etc) must provide similar information on the vibration levels.
- A Vibration Assessment (SM-FM-40) shall be carried out to identify an alternative, safer method of work and as a minimum to ensure that operatives do not spend more time than the information from equipment suppliers allows.
- Equipment shall be regularly maintained.
- Cutting Tools shall be sharp.
- Equipment exhausts shall point away from the operative.
- The Operative shall not smoke, whilst using the equipment.
- The Operative, especially their hands, shall be warm whilst using the equipment as cold hands/fingers are the first symptom of HAVS.
- The operative shall not exceed the maximum exposure time for any vibration work (see SM-WI-44 and Vibration Assessment SM-FM-40).
- Operatives must not exceed the maximum exposure time/quantity of work identified in either Item C or E above.

### **3.2.6 Other Significant Health Risks**

## **3.3 Environmental Risks**

All significant environmental risks must be recorded in the Site Environmental Risk Register (SS-FM-66) and be identified on the Project Work Activity Schedule.

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## *Project Management Plan*

### **3.3.1 Air Quality**

Where there is a risk of dust, it will be controlled by the use of dust extraction and collection methods, and damping down if appropriate.

Mansell will control exhaust fumes from plant by the use of extended flues. This will ensure that any exhaust fumes are taken to a point where they cannot re-enter the building and cause harm or discomfort.

### **3.3.2 Land Water and Sewage Quality**

Thames Water will be consulted in the event that Mansell will be required to discharge water to the sewerage system. Mansell will apply for a permit to discharge and will comply with any requirement to filter or clean the waste water prior to discharge.

### **3.3.3 Waste Management**

The Site Waste Management Plan (SM-FM-33), identifies the waste being produced, the waste category and removal options being implemented.

### **3.3.4 Contaminated Land**

A ground investigation has been undertaken. If further testing is required samples will be taken and analysed at a NAMAS accredited laboratory to assess levels of contamination.

### **3.3.5 Noise and Statutory Nuisance**

Noisy works will be controlled and planned to ensure the minimum disruption to the Hospital users, general public and surrounding residents.

### **3.3.6 Archaeology and Ecology**

Upon discovery any Archaeology exposed will be reported to the contract administrator.

There will be a requirement to protect trees during the progress of the works. These are identified on the site layout drawing.

There is no other significant ecology to be preserved or protected during the course of the works.

### **3.3.7 Other Significance Environmental Considerations**

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## *Project Management Plan*

There is a requirement for all contractors to be aware of the risk of infection to hospital patients. This risk can be significantly increased by uncontrolled release of dust into clinical areas. Where there is a risk of dust, it will be controlled by the use of dust extraction and collection methods

<b>3.4 Quality Risks</b>
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All significant quality risks are identified on the Project Work Activity Schedule.

### **3.4.1 Inspection and Test**

Inspection and test plans will be formed in accordance with the Work Activity Schedule and implemented by the individual package contractors.

The site managers will be responsible for the carrying out of weekly inspections of the site.

### **3.4.2 Protection of the Works**

It is the responsibility of each sub-contractor to protect their works until practical completion. All finished works will be protected with a suitable covering complying with LPS1207 standard for fire/flame resistance.

### **3.4.3 Acceptance Criteria**

It is Mansell philosophy to aim for zero snagging on completion and to reduce the incidence of defects appearing after practical completion.

Mansell will advise the project manager of any condition that may affect the quality or progress of the works prior to commencement of the particular activity or at the time that the condition becomes apparent.

### **3.4.4 Handover Arrangements**

Prior to Hand-over and all works being installed/carried out, the opportunity is to be given to the Professional Team to inspect and snag the works, allowing the final de-snag inspection to take place on the day of Hand-over. 4 weeks prior to Hand-over a draft set of O & M manuals will be handed to project manager for checking.

O& M manuals together with the Health & Safety Files and one electronic copy of all trades will be passed to the Project Manager at Hand over. At an agreed time we shall fully demonstrate the operation of all mechanical and electrical plant, controls and installation as necessary under this Contract to the Maintenance Engineer to enable the Client to operate and maintain the installation. Handover will not take place until this has been completed and the Client has issued their "Practical Completion Certificate".

## *Project Management Plan*

### **3.4.5 Inspection, Test and Measuring Equipment**

It is an ISO9000 requirement that calibrated equipment is used. All equipment hired or purchased will comply with this requirement. If an external supplier or sub-contractors equipment is being used, then this will be identified and a current certificate of calibration submitted and held on site to ensure compliance.

### **3.5 Stakeholder Risks**

All significant stakeholder risks are identified on the Project Work Activity Schedule.

## **4.0 PROJECT RECORDS**

During the Design and Planning stages of the Project, the CDM Co-ordinator will start to prepare a Health and Safety File. This will continue during the Construction Phase.

Information contained in the file needs to include that which will assist persons carry out construction or de-construction work on the structure at any time after completion.

### **4.1 Health and Safety File**

#### **4.1.1 Layout and Format**

The Health and Safety File will be based on the format as detailed in the Pre-Construction Information Pack.

It is the CDM coordinators responsibility to provide the H&S file upon completion of the works

#### **4.1.2 Arrangements for Collection and Gathering of Information**

Mansell will assist the CDM Co-ordinator in collation of information required for the H&S file. Mansell will contact all specialists and suppliers prior to Practical Completion and collate the information required for inclusion within the Health and Safety File and Operation and Maintenance Manuals.

#### **4.1.3 Storage of Information**

Mansell will present the information required for the Health and Safety File in a format agreed by the CDM coordinator.

## **4.2 Operation and Maintenance Manuals**

The Operation and Maintenance Manuals will include the requirements identified within the Pre- Construction Information Pack.



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## *Project Management Plan*

### **4.3 Building Manual/Log Book**

In addition to providing an O & M manual, the Mansell team and design team shall also provide information to be included into the existing Building Log Book as required under Building Regulations Part L 2002

### **4.4 Site Registers**

An Inspection Register (SS-FM-17) will be maintained and held on site.

### **4.5 Other Records**

## **5.0 COMMERCIAL MANAGEMENT**

### **5.1 Contract Status**

Contracts are being prepared for signature

### **5.2 Bonds, Warranties and Guarantees**

A bond has been requested for this project

### **5.3 Insurances**

Have been provided

## **6.0 Appendix**

### **Emergency Arrangements & Emergency Procedure Notice**



## Project Management Plan



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### Fire Safety Plan and Emergency Arrangements

This Fire Safety Plan and arrangements must be used in conjunction with SRCA 07  
A project specific layout plan and Emergency Procedure Notice (SS-FM-39) must accompany these arrangements

Job No.: MW0241	Job Title: Extra Theatres	
Site Address: Mansell Construction Services Ltd Royal free Hospital Hampstead Pond St Hampstead London NW3 2QG		Postcode: NW3 2QG
		O/S Map Grid Ref.:
<b>The organisation of, and responsibilities for, fire safety and arrangements for recording all training given to site operatives</b>		
<b>Client Responsible Person:</b> Applicable if the workplace is to any extent under his control: eg Hospital/school/office etc		<b>Telephone / Mobile No.</b>
Afzal Khan		Tel: 0207 794 0500 Mb: 07976 257037
<b>Mansell Key Staff</b>		<b>Telephone/Mobile No.</b>
S.White Miller		07547739924
<b>General site precautions, fire detection and alarm systems, temporary emergency lighting and fire points</b>		
<b>Fire Safety Plan</b>		<b>Plan/Dates</b>
Fire Drills:	3 Monthly	May 2012
Fire Checks:	Daily/Weekly/Monthly	Weekly
Detection/Warning:	Interlinked Alarm	Monthly
Emergency Lighting:	Type	110V Fluorescent
<b>Fire Points/Locations</b>	<b>Equipment (Alarms/Extinguishers/Hose reels etc.)</b>	
	<b>Type</b>	<b>Make</b>
Plant Room	Water/CO2 Extinguisher	
Corridor on Theatre level	Water/CO2 Extinguisher	
Welfare area	Water/CO2 Extinguisher	
<b>Location of Designated Smoking Areas where provided in compliance with No Smoking legislation</b>		
Smoking is not permitted on site; Smokers must:		
Leave Hospital Premises		

A Balfour Beatty Company

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## Project Management Plan



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### Fire Safety Plan and Emergency Arrangements

<b>Hot Work (Plumbing, Welding, Burning and Grinding or other process likely to produce heat / sparks.)</b> THESE WORKS MUST BE ACCOMPANIED BY A HOT WORK PERMIT (SS-FM-11)
Soldering Braising Vinyl Welding
<b>Temporary Buildings and Temporary Accommodation (including location, fire protection, construction and maintenance):</b>
Site Welfare as denoted on site plans
<b>Fire Escape and Communications (including an effective evacuation plan and procedures for calling the fire and rescue service):</b>
Fire Alarm linked to RFH who will call emergency services.
<b>Fire and Rescue Service Access, Facilities and Co-ordination:</b>
In the event of a Fire access will be from the access road at the front and rear of the site and not from the site compound area due to space restrictions
<b>Instructions Given to those on site of the Required Actions in Case of Fire:</b>
Raise the alarm Exit the building from the nearest exit Meet at the Muster Point
<b>Security Measures to Minimise the Risk of Arson:</b>
CCTV
<b>Materials Storage and Waste Control Regime, with particular reference to Flammable and Highly Flammable Materials:</b>
No flammable storage on site.
<b>Maintenance of Temporary Electrical Installations:</b>
Subcontractor responsible for installation

## Project Management Plan



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### Fire Safety Plan and Emergency Arrangements

Emergency Contacts	Tel:	Contact:
Local Fire and Rescue Service	020 8555 1200	Fire Safety Regulation South West Area 4 169 Union Street London SE1 0LL
Local Police	0207 230 1212	26 Roslyn Hill London NW3 1PD
Local Hospital	0207 387 9300	RFH Pond Street Hampstead NW3 2QG
Site First Aider(s)	S.White Miller	07547739924
Mansell SHEQ Department	Claire Birmingham	07801 460642
Stakeholders	Tel:	Contact:
Statutory Bodies	Tel:	Contact:
HSE	0207 717 600	HSE Rose Court 2 Southwalk Bridge London SE1 9HI
EA/SEPA		
Utilities	Tel:	Contact:
Electric	0800 028 0247	EDF
Telecom	0800 800 152	
Water	0845 920 0800	Thames Water
Gas	0800 111 999	National Grid
Mansell Out of Hours	Tel:	Contact:
S.White Miller	07547739924	
J.Macleod	07970 158511	
Mansell Emergency	020 7490 1220	





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## *Project Management Plan*

<b>7.0 Appendix</b>
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### **Site Rules and Induction**

## Project Management Plan



### **RFH Additional Theatres MW0241 Site Specific Rules & Project Information**

#### **Access and Egress**

Refer to site access plans.  
Signing in is located in the site office within the secure compound  
All operatives are required to sign in at the beginning and end of each shift  
Refer to site fire plans setting out fire points

#### **Particular times when materials can be loaded out to your project**

Larger deliveries will need to be cleared with Mansell with a minimum 48hrs notice  
The S/C should advise MCSL if they require any parking bay suspension to facilitate deliveries  
All deliveries need to be booked in with the site manager

#### **Particular times when debris can be transported from your project to skips etc**

A mixed use skip will be provided within the secure compound. All debris to be removed within normal site operating hours

#### **Asbestos**

An Asbestos survey has been undertaken and any identified material has been removed.  
There could be some remaining. If you suspect a material is asbestos please inform a site manager straight away.

#### **Description of works**

- The Additional Theatres project is located adjacent to the main hospital theatre block
- Works comprise the creation of theatres, plant rooms, recovery areas
- Refurbishment works are due to Run from February 2013 – August 2013
- Working hours are 8.00am to 6.00pm Mon to Fri and 8.00am to 1.00pm Saturday.
- Works are undertaken adjacent to live hospital areas

#### **Details of any particular noise restrictions**

Before undertaking any noisy works inform the site manager who will advise on restrictions

#### **Security of the projects - doors kept locked - combinations to key locks etc**

The site entrance point may be subject to change. Review site info and ask your manager  
Site doors will be locked by Mansell when works are complete at the end of each working day  
Working in live hospital areas is only permitted upon agreement with RFH and MCSL

#### **Welfare facilities**

Canteen, WC's and Changing Rooms are available in the site compound  
It is your responsibility to keep these areas clean and tidy

#### **Smoking**

There is no smoking on hospital premises.

#### **Permits**

You need permits for Stepladders, work in confined spaces, use of hop-ups, hot works and fire alarm isolations, access to plant rooms, access to the live hospital. Collect permits from site office BEFORE carrying out work.

#### **Dust**

All dust should be suppressed and controlled. If you are involved in dusty works you have a responsibility to control your activity. Remember dust can increase the risk of infection

**Please sign to confirm that you have read and understood the specific site rules and conditions**

Print name:.....

Signed.....

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## *Project Management Plan*

<b>7.0 Appendix</b>
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### **Traffic Management Plan**

It is noted that the roads around the hospital are very congested especially at peak times. Areas around the hospital are of mixed residential and commercial property and car parking is limited. One way routes to the east of the site should be avoided as these are narrow mainly residential roads. Traffic congestion around the hospital is not assisted by a shortage of parking for visitors and roads can become further congested by vehicles picking up or dropping off passengers.

The site itself is fed by the private Hampstead Green Road but this can also become congested as one of the hospital car parks is also accessed from this road. It is noted that traffic can queue in this location waiting for spaces to be made available. The road itself is narrow with parking on a pay and display basis is allowed on one side.

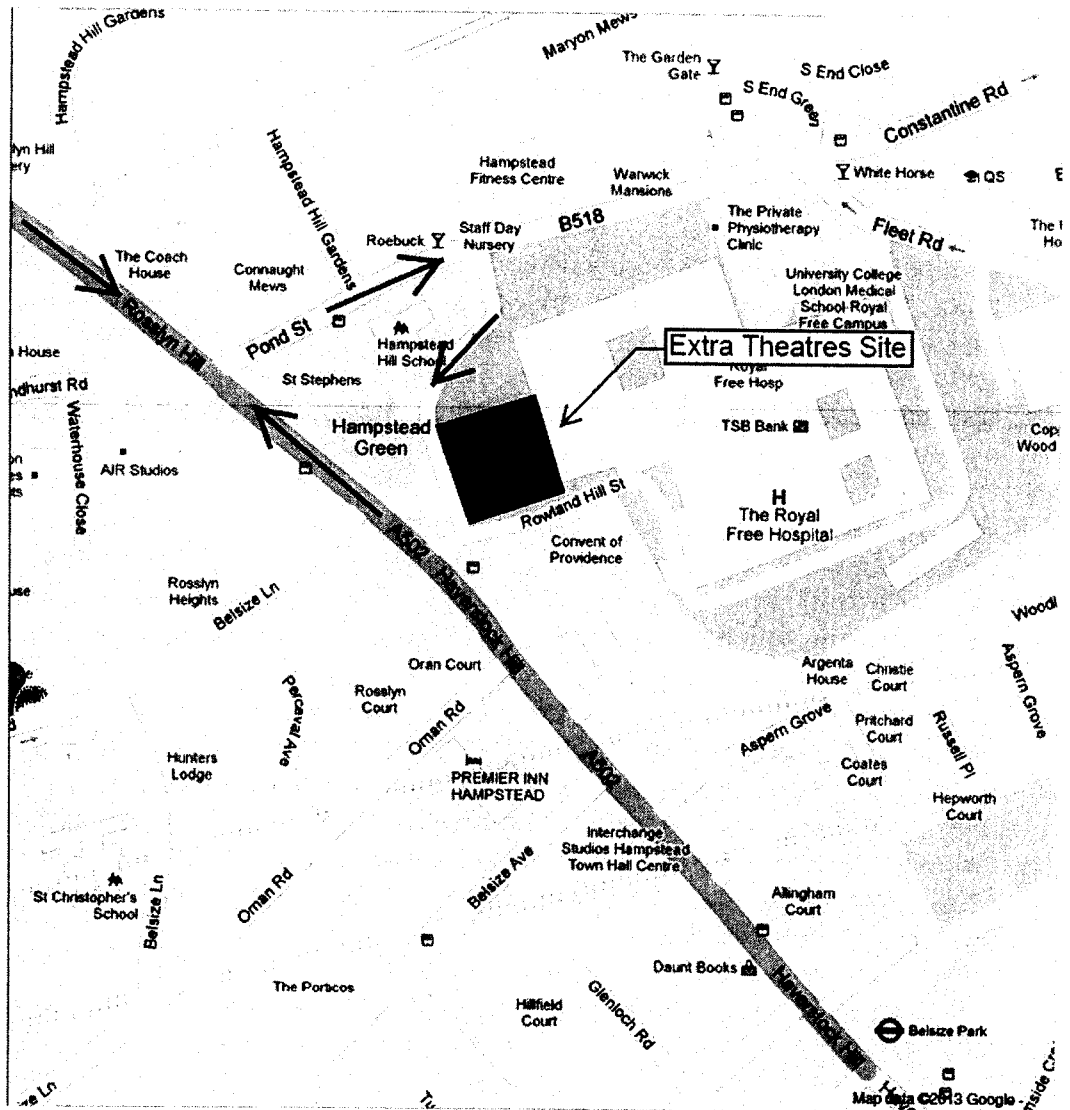
Mansell will ensure that all suppliers and subcontractors are made aware of local traffic issues and will provide information on the specific route to site. All subcontractors will be provided this information at order stage. The supply chain will thus be advised to access from the North West of the site from the main A502 road. From the A 502 traffic will take the B518 and then enter the private Hampstead Green Road which passes the site entrance. There is no holding or waiting area available and this will also be made clear.

It will be necessary for suppliers wishing to deliver the larger elements of construction materials (e.g. structural steelwork) to visit and survey access limitations. Parking bays will need to be suspended to facilitate delivery and the RFH advise that this can be arranged in 24-48 hours. Mansell will endeavour to provide a minimum 7 day notice of such requirements. Furthermore it is expected that the maximum size of vehicle able to access the site will be limited to a 20 yard vehicle.

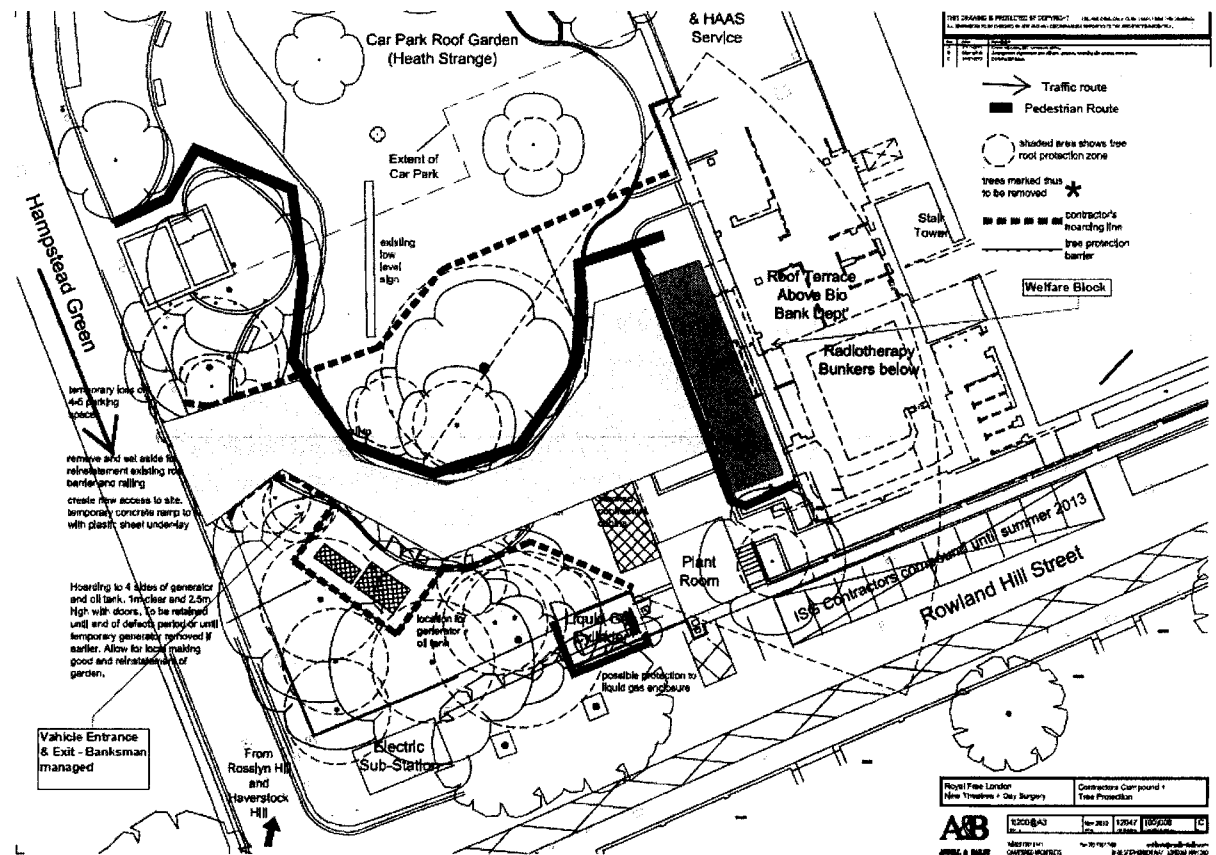
Materials will be carefully marshalled on to site by a trained banksman. There will be no possibility to turn vehicles on site due to space restrictions and therefore vehicles will need to reverse from site again under the guidance of the trained banksman.

Separate pedestrian routes will be established and areas separated by either solid hoarding or Heras panels. Routes will be clearly sign posted and maintained.

## Project Management Plan



← Traffic Route to site



## MANAGEMENT METHOD STATEMENT

A nominated senior site manager (Simon White Miller) will oversee all aspects of the works and will be based on site full time.

The site manager will ensure that the works are carried out under all Health and Safety and CDM Regulations, and also liaise with the client, design team and hospital staff including neighbouring departments, to ensure the smooth execution of the works.

The Site Manager will also co-ordinate the removal of waste material, manage site security, fire prevention and the organisation of direct labour.

The contact name and telephone number will be clearly stated in the construction phase health and safety plan and will be posted on the site entrances for general public notice in the case of emergencies.

Site Health and Safety will be audited by Mansell PLC safety advisors on a bi-weekly basis and overseen on a daily basis by the site manager. Any Health and Safety non

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## *Project Management Plan*

conformance highlighted by the safety advisors or management team will be rectified immediately.

The principle contractor will co-operate with all adjoining occupiers and contractors throughout the project.

### **SITE SECURITY**

Mansell will ensure that all operatives sign in to a personnel log book on arrival at site and sign out at the end of their shift.

The work areas will be secured by site hoardings in positions as agreed with the RFH PM. The doors will have secure digital locks where necessary to prevent unauthorised access to site.

Additionally;

All site operatives will undergo a site induction process prior to commencement of works. (Copy appendices) At the completion of this induction, operatives will sign an attendance sheet thereafter to confirm their understanding of site requirements.

All relevant safety legislation signage will be installed for site operatives and general public information. Internal site signage will be clearly installed highlighting areas that are out of bounds to site personnel or require permit to access.

All site operatives must be in possession of CSCS skills cards to identify they can work on site in a safe manner.

### **SITE WELFARE / SITE OFFICES**

The RFH has made an area available adjacent to the construction site for establishment of welfare facilities. Mansell will provide a site office, canteen, drying room and toilet as a minimum.

Welfare facilities will be maintained in a clean, hygienic condition.

The existing Liquid Nitrogen storage area (adjacent to the welfare facilities) will be protected for the duration of the works

### **ACCESS & EGRESS.**

Access and Egress to the main site area will be provided by an existing shared staircase and a separate HAKI staircase which will form part of the perimeter access scaffold.

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## *Project Management Plan*

There are other areas within the live hospital that will need to be accessed to enable service connections. Access to these areas will be agreed with the RFH PM and secure hygienic hoardings will be established.

Mansell will ensure that access to the existing Heart Attack and Stroke department is maintained throughout the project. A protective scaffold fan will be provided above this area

### **EXISTING FEATURES**

Information will be requested from the RFH with regard to permitted loadings for the welfare arrangement and crane locations

Information will be requested from the RFH with regard to Radiation protection to workers. The hospital Radiation protection officer will provide this information

Mansell will protect any existing features which could potentially be affected by the works.

### **MATERIALS DELIVERY AND REMOVAL**

Material deliveries and removals access will be by way of the Hampstead Green Road. Distribution onto the site areas will be by varying means. Wherever possible care will be taken to eliminate the need to transfer material and plant through public areas

- There will be a crane to construct the steelwork frame with composite RC slabs. This will be located in the Garden area that has been provided as a site compound. Waste will also be removed from this location
- A hoist will enable plant and material delivery/removal to the main site area.
- A skip will be located in the site compound area and will be taken away once loaded. All arrangements for delivery and pick up of skips will be undertaken by the site manager

All delivery vehicles will be marshalled into the site compound by a trained banksman. Due to the space restrictions of the compound area it will be necessary to reverse vehicles from the site compound area. This will also be overseen by a trained banksman.. The plant and vehicle co-ordinator will be responsible for management of vehicular and pedestrian traffic.

### **WASTE MANAGEMENT**

All waste and debris is removed from site in coordination with Mansell SRCA 18 and as laid down within waste transfer legislation.

The project is registered with the Environment agency.

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## *Project Management Plan*

Site waste is removed from site within a skip by our registered waste contractors to a waste transfer station where it is segregated and waste transfer notes issued. These are summarily copied into the site waste reduction plan and issued to head office on a monthly basis.

Any combustible waste materials shall be disposed off site as soon as practicable and shall not be stored other than in non-combustible containers and away from any other combustible materials.

### **EXISTING SERVICES.**

Prior to any demolition works preceding a survey will be carried out by competent trained operatives to ensure all live services are isolated prior to works commencing. An isolation request form will be submitted to RFH for each service required to be isolated.

### **TEMPORARY SERVICES.**

#### **Power**

Power will be provided from a local distribution board as agreed with the RFH clerk of works.

Site lighting will be run from temporary power transformers on the floor

#### **Water.**

Temporary water will be run from existing supplies as agreed with the RFH clerk of works

#### **Fire security.**

We propose to utilise the existing fire security system when working within the existing building. The main site area is adjacent to the main building and therefore a separate system will be established. All fire points will be identified on our fire plan.

### **ASBESTOS**

A demolition and refurbishment asbestos survey was carried out by RFH specialists GSD Safety prior to works commencing.

No materials have been identified within the existing building structure to be adapted. However it is anticipated that asbestos materials will be present within pipe risers, plant rooms and electrical distribution boards. Further information and advice is contained within the asbestos report. Information contained within this report will be



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## *Project Management Plan*

communicated to the workforce via inductions and briefings and by issue of the report itself.

If Mansell discover Asbestos during the works they will stop all work and work in accordance with the accidental discovery procedure which will be on display in the site office.

### **SITE RULES / SITE INDUCTIONS.**

A copy of Mansell site rules are appended to the plan.

Minimum PPE for all site operatives and site visitors;

- Safety helmets.
- Safety footwear.
- Gloves.
- Hi-viz vests.
- Safety Glasses

All site operatives shall ensure that the works comply with all current Health and Safety Legislation.

Additional PPE as required to carry out specialist works and identified within specific method statements.

All site operatives will be made aware of 'Good Housekeeping' policies and the site must be kept in a clean condition for the duration of the contract and upon the completion of works at the end of each working day.

The instruction or commands depicted on safety signs must be complied with at all times.

All electrical equipment to be PAT tested and certification issued to site manager.

Any defective / damaged equipment to be removed from site immediately.

Be aware and comply with any fire and emergency procedures and to evacuate the buildings at the sound of the fire alarm.

### **HOURS OF WORKS.**

The site hours of works will be;

8am – 6pm Monday to Friday.

Some "Out of hours" working will be required to undertake specific items of work such as isolations to existing services. Mansell will provide the RFH project manager with 4 weeks notice of any such isolations

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## *Project Management Plan*

Weekend working will be notified to the RFH project manager in time for their notifications to go out to other staff.

### **MANUAL HANDLING.**

The site conditions and works logic is as such that a great number of tasks including materials loading out and debris removals will involve manual handling.

All sub contractors and site labourers will be made aware of this issue via pre commencement meetings and site inductions. Manual handling assessments will be obtained from the supply chain who in turn will ensure that operatives will be suitably trained and supervised.

### **DUST, NOISE AND VIBRATION.**

#### **Noise**

From previous knowledge of hospital activity and particular information with regard to this site and neighbouring departments, we are aware that noisy works restrictions may be imposed. No noisy work times have been identified and Mansell will progress with noisy works unless instructed to stop. If instructed to stop, Mansell will advise the Contract Administrator and agree any action to be taken or recommencement of works.

All works will comply with noise at work regulations 2005. Ear plugs will be available on site for issue if operatives are working within the vicinity of noisy works.

Specialist contractors carrying out noisy works have identified decibel levels and PPE requirements for their operatives within specific method statements.

#### **Dust**

Mansell will employ a damping down water control system to reduce and alleviate the level of dust where applicable. Any equipment to be used for dusty works will be suitable for the task and incorporate dust suppression technology.

Air tight hoardings will eliminate dust entering adjacent corridors.

Operatives carrying out specific works associated with creating high levels of dust will identify their dust control methods and operatives PPE requirements within their specific method statements.

#### **Vibration**

All works carried out that potentially could result in Hand Arm Vibration (HAV) to be carried out as directed under relevant guidelines and a HAV register updated on a daily basis by specific contractors and kept on site files.



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*Project Management Plan*