
Margam Crem

Reference: RAMS 41

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Job Role: Director

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1.0 Method Statement

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|----------------------------------|--|
| 1.1 - Scope of works | 1.2 - Personnel involved in this project |
| 1.3 - Training & Competence | 1.4 - Legislation |
| 1.5 - Access arrangements | 1.6 - Electrical Isolations |
| 1.7 - Tools and equipment | 1.8 - Waste Management |
| 1.9 - Hazardous waste | 1.10 - Emergency procedures |
| 1.11 - First aid provision | 1.12 - Welfare provision |
| 1.13 - Manual handling | 1.14 - PPE requirements |
| 1.15 - Specific PPE requirements | 1.16 - Amendments and Authorisation |

2.0 Sequence of Works

2.1 HVAC

- 2.1.1 - Sign in and induction
- 2.1.2 - Installation of Containment tray
- 2.1.3 - Installation of Tubing and pipework
- 2.1.4 - Installation of Condenser unit/s
- 2.1.5 - Low voltage electrical works and cable installation
- 2.1.6 - Fan coil / AC unit installation
- 2.1.7 - Pressure testing pipework
- 2.1.8 - Testing & Commissioning

3.0 Risk Assessment

- | | |
|---------------------|-------------------------|
| 3.1 - Mains circuit | 3.2 - Refrigerant gases |
|---------------------|-------------------------|

1.0 Method Statement

Project: Margam Crem

Reference: RAMS 41

Site Address:

Margam Crematorium
Margam

Client: NPTCBC

Principal Designer: NA

Start date: 11 Mar 24

End date: 25 Mar 24

Works Supervisor: Glen Lewis

Works Supervisor phone: 07990 577836

1.1 Scope of works

Report into Reception on each site visit and sign out on leaving. Park vehicle where allocated.

The work is based on the installation of High Wall Heat Pump Units within the Offices Area Phase 1, The Installation of Spot Cooling in the cremator area Phase 2. Phase 3 which is the installation of a Ventilation System to serve the Cremator area is to be the subject of a separate RAMS.

Phase 1 – Offices – Drawing M01 Part M02

The Fan coils weighing approximately 15 Kgs each will be located within the Offices and fixed to the wall as required.

The internal pipework will be surface mounted in trunking leading to the closest point of access to the ceiling void. Services will be suitably bracketed back to the original structure.

The Pipework will be run into the Cremator area where it will rise and exit to Roof Level via the existing Roof Light, a purpose made “Cravat” style opening will be provided for weathering.

The External Units weighing 65 Kgs will be located onto the parapet wall using a cantilever style bracket. The top of the Unit will not be above the top level of the capping to the wall.

Power will be provided from the Distribution Board within the building.

Once the installation will be completed the system will be pressure tested, dehydrated, and set to work.

Local controllers will be provided, and Instructions given in their use.

Phase 2 – Spot Cooling – Drawing M02

The Fan coils weighing approximately 25 Kgs each will be located within the space at an agreed level, these will be supported via Unistrut cross members to the existing structural steel with drop rod fixings.

The internal pipework will be tray work mounted and exit the building at low level Services will be suitably bracketed back to the original structure.

The External Units weighing 100 Kgs will be in the Dry Cooler Bay as agreed. The units will not be visible as they will be located behind the timber screen walling.

Power will be provided from the Distribution Board within the building.

Once the installation will be completed the system will be pressure tested, dehydrated, and set to work.

Local controllers will be provided, and Instructions given in their use.

Lifting will be via a Hiab style vehicle.

1.2 Personnel involved in this project

The following persons will be working on site throughout this project:

- Glen Lewis
- Aaron Slee
- Gary Hallihan
- Richie Blow

1.3 Training & Competence

All Company operatives are competent and sufficiently trained to carry out the tasks that are required as part of the project. Copies of individuals training certificates are available upon request

1.4 Legislation

Associated legislation:

- Construction (Design and Management Regulations) 2015.
- Environmental Protection Act 1990.
- First Aid at Work Regulations 1981.
- Health and Safety at Work Act 1974.
- Health and Safety (Signs and Signals) Regulations 1996
- Management of Health and Safety at Work Regulations 1999
- Personal Protective Equipment at Work (Amendment) Regulations 2022
- Provision and Use of Work Equipment Regulations 1998.
- Reporting of Injuries, Diseases and Dangerous Occurrence Regulations 2013.
- The Fluorinated Greenhouse Gases Regulations 2015
- Control of Substances Hazardous to Health Regulations 2002
- Electricity at Work regulations 1989
- Electromagnetic Fields at Work Regulations 2016
- The Control of Vibration at Work Regulations 2005
- Lifting Operations and Lifting Equipment Regulations 1998

1.5 Access arrangements

All company operatives and sub-contractors will be inducted in before commencing with work on site.

Access and egress from the site shall be via the designated entrance and exit routes provided

Upon arrival, all company operatives and sub-contractors will sign in at the Site office (or other designated area) before accessing the working area. Before leaving the site, all company operatives and Sub-contractors will sign out.

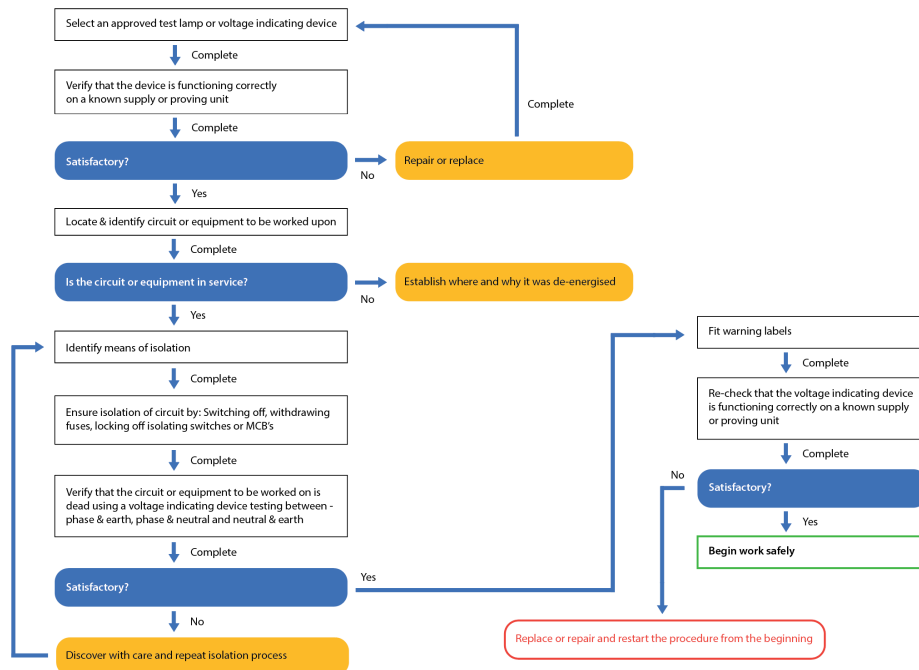
1.6 Electrical Isolations

Work can only commence following the installation of adequate isolations on the power supply. Locks with warning tags are required where the point of isolation is not directly and continuously under control or within sight of the person carrying out the work.

Steps will be taken in according to risk assessment requirements to ensure the reconnection of the power supply is not possible.

Testing shall be completed using a voltage indicator that complies with the Electrical Test Equipment for Use by Electricians GS38 after any isolation on the circuit. The tester will be proven on a known source to verify it is working correctly before and after the test is carried out on the isolated circuit.

The area of works will be restricted access with warning / danger signs on display



Safe Isolation process

1.7 Tools and equipment

All tools and equipment utilised throughout the project shall be in good working order and inspected according to any relevant statutory provisions explicitly placed upon the tool or equipment. The Accompanying risk assessment shall identify the control measures that all employees and contractors shall adhere to safely operate company (Including hired) tools and equipment while on site.

The use of specialised manual handling aids shall only be undertaken by trained and competent personnel who have received suitable information, instruction and training in the use of the equipment.

If any tool or item of equipment is found to be impaired or not suitable for the task for any reason, it shall be removed from service and a suitable alternative sourced.

1.8 Waste Management

Waste Materials will be removed off site on a regular basis and returned to our Yard for disposal.

1.9 Hazardous waste

N/A

1.10 Emergency procedures

Development and implementation of site emergency procedures is the responsibility of the Principal Contractor. Details of site emergency procedures are within the Construction phase plan.

Instruction and information related to site emergency procedures will take place during the site induction which all personnel are required to attend. In the event of uncertainty, all site operatives should discuss with the Site Manager or Health and Safety Representative.

If any of the site emergency procedures change, all operatives shall be informed of the changes in a timely manner to ensure they are up to date.

1.11 First aid provision

All Operatives shall refer to the onsite safety notice board for all first aid information; All operatives will be shown the location of the safety notice board during the site induction.

The quantity of site first aid boxes shall be proportionate to the number of operatives on site and stocked with contents according to BS 8599-1 unless a first aid assessment dictates otherwise.

If the needs assessment has identified that first-aiders may have to manage life-threatening bleeding, we will ensure the training provider covers this on a FAW course for our operatives

The Principal Contractor shall be responsible for the sites first aid provisions.

The quantity of Site first aiders shall be according to the First aid at work Approved Code of Practice document L74; details are in the table below:

Type of industry	How many persons employed	Number of trained and competent first aiders required
Low hazard – Offices, shops, libraries etc.	Less than 25	At least 1 appointed first aider
	Between 25 and 50	At least 1 Emergency first aid at work trained first aiders
	More than 50	At least 1 First aid at work trained first aider for every 100 persons employed
Higher hazard – Light engineering and assembly work, food processing, warehousing, extensive work with dangerous machinery or sharp instruments, construction, chemical manufacture etc.	Less than 5	At least 1 appointed first aider
	Between 5 and 50	At least 1 Emergency first aid at work trained first aiders depending on the type of injury which may occur
	More than 50	At least 1 First aid at work trained first aider for every 50 persons employed

First aiders on site guidance (Quantity)

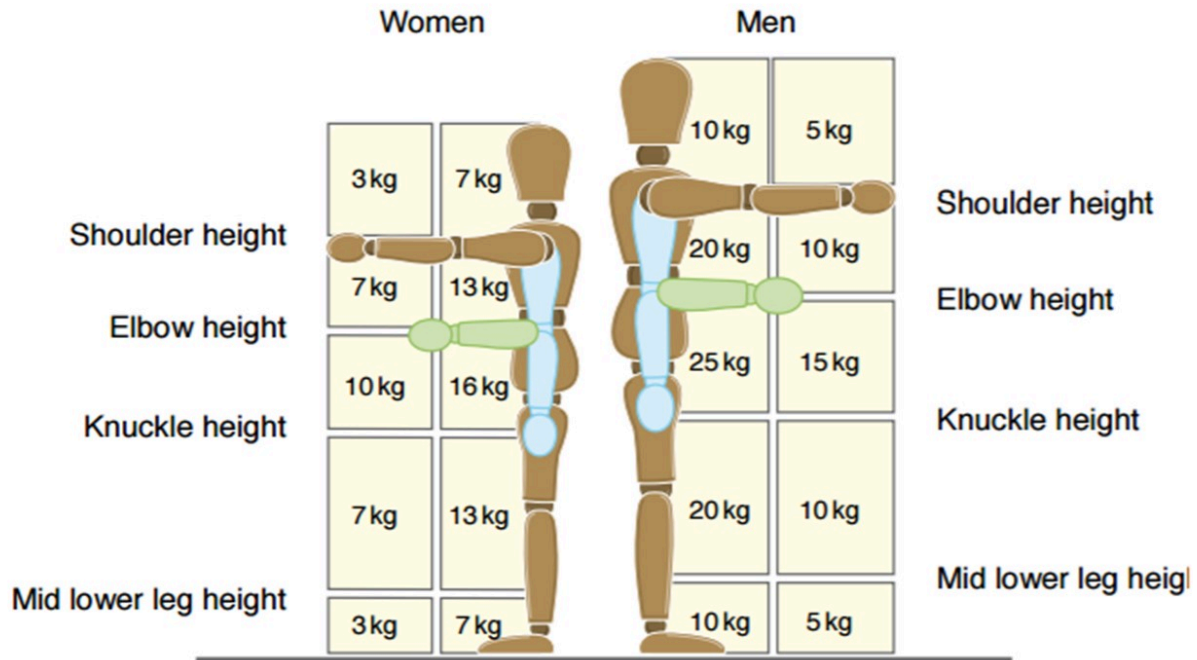
1.12 Welfare provision

Local Facilities to be used.

1.13 Manual handling

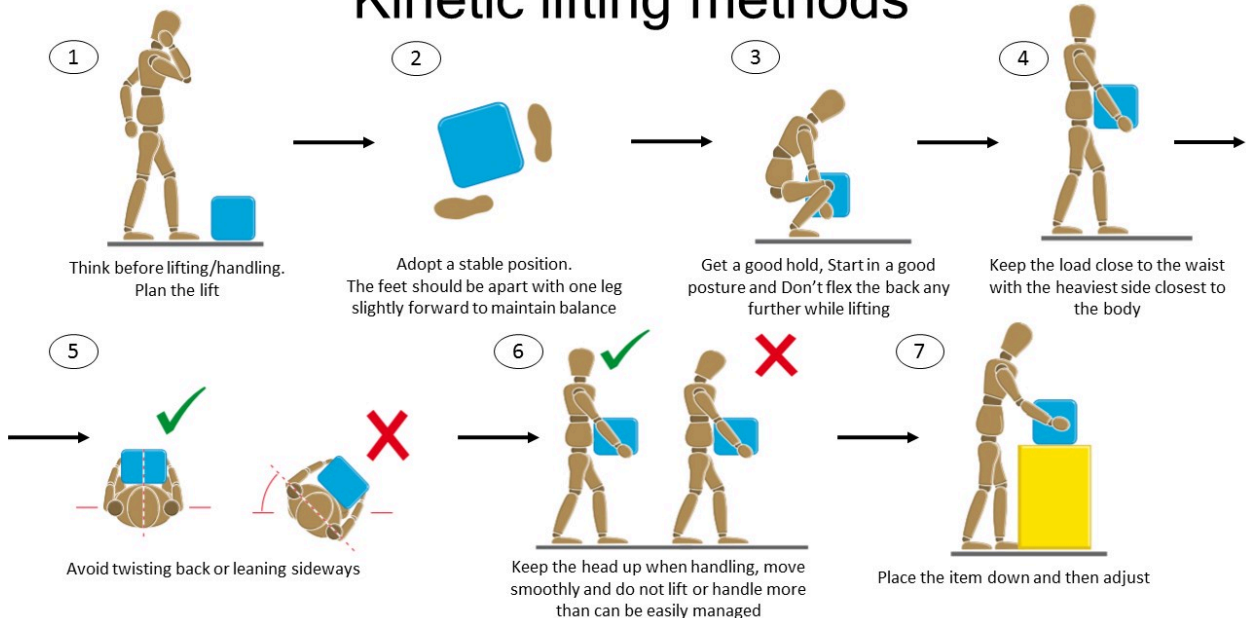
All company operatives are given suitable and sufficient information, instruction and training to carry out their Manual Handling duties. Where possible, all equipment and materials shall be transported using mechanical means.

Where equipment and materials are to be lifted and carried, all company operatives shall adopt Kinetic lifting methods as depicted below:



Manual handling

Kinetic lifting methods



Kinetic Lifting techniques

1.14 PPE requirements



Hi Visibility
Clothing (Bs en
471)



Head protection
(En 397)



Protective
Footwear (Bs en
iso 20345)



Eye Protection -
Safety Glasses
(Bs en 166)



Protective
Gloves



Protective
Clothing

1.15 Specific PPE requirements

All standard PPE required for site work shall be provided and used at all times by the Company's Staff and Contractors.

Standard PPE

While on site, all staff shall be required to wear the above PPE at all times.

Task-Specific PPE

Details of all specific PPE requirements required out-with the standard identified above is within any accompanying COSHH assessment or specific risk assessments contained within this document.

In the event of additional PPE is required that is not considered standard (as highlighted above or within the supporting risk assessments), these shall be provided by the Principal Contractor who will also be responsible for the provision of suitable information, instruction and training as required.

1.16 Amendments and Authorisation

In the event of changes from the proposed work scope, the job will be stopped and re-assessed.

The Works Supervisor will notify the Company Director (or delegate) and Site Manager and inform them of the changes to the workscope.

If required, the RAMs document and other safety related documentation will be edited as necessary to reflect a significant change and re-submitted to the Site Manager or Delegate for approval.

2.0 Sequence of Works

2.1 HVAC

2.1.1 Sign in and induction

- Upon first visit to Site, All Operatives will attend site induction and complete all necessary Paperwork.
- Provide proof of competence (CSCS, Skillcards etc.).
- Operatives to ensure that they sign in at the Site office or designated sign-in area upon all future visits.

2.1.2 Installation of Containment tray

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required to install the containment tray.
- Review asbestos survey (as applicable).
- Transport all materials to the pre-identified area for modification and cutting.
- Erect barriers and appropriate signage around the work area.
- Refer to drawings and scope out the route of direction for the containment tray, uni-strut and drop rods.
- Review all nearby third party services to identify any potential conflicts or changes required to the installation.
- Ensure that the fixings are correct for the fabric of the building - In the event of uncertainty, the task will be stopped and reported to the Supervisor &/or Site Manager.
- Identify any equipment required to work at height (Podium Step, Access platform, Step Ladder etc.)
- Visually inspect the access equipment prior to use – In the event of any defect being noted, the equipment shall be removed from service and quarantined to prevent further use.
- Raise materials onto the access platform as required.
- Install anchor, drop rods, uni-strut and tray containment from the access platform.
- Fixed 'trapeze' suspensions which are to support cable tray / trunking will not have the drop rods protruding no more than 20mm below the uni-strut support.

- Uni-strut that forms the base of the trapeze will have all the cut edges files and painted with a galvanised paint.
- Installed trunking / tray will be fixed to the uni-strut trapeze by means of the adequately sized nut and bolt.
- Trunking fixed directly to the fabric of the building will be by purposed drilled holes to the back of the trunking and fixed with the correctly sized fixings.
- All trunking / tray will be secured together using the manufacturer's brackets and having the correct earth strapped installed.
- When joining lengths of basket, the correct manufacturer's joiners will be installed.
- Containment (Basket, trunking, and tray) will be 'cross bonded' from a known source.
- Throughout the installation all installed containment will frequently be checked by various tools/methods for its level.
- Works Supervisor to check quality of installation prior to sign off.
- Remove all work at height access equipment and store in designated area.
- Remove any surplus materials back to ground level.
- Tidy surplus materials and store in a designated area.
- Dispose of materials in accordance with the site waste management plan.

2.1.3 Installation of Tubing and pipework

- Identify a location to bend and cut the pipework and small bore tubing into the correct size.
- Transport all materials to the pre-identified area for modification and cutting.
- Tidy surplus materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.1.4 Installation of Condenser unit/s

- Identify correct position for new units.
- Erect barriers and appropriate signage around the work area.
- Condenser units to be positioned by means of site plant.
- Secure the condenser in accordance with the manufacturer's instructions
- Tidy surplus materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.1.5 Low voltage electrical works and cable installation

- Install the cables in accordance with the wiring diagrams and drawings.
- Secure the cables to the cable supports and/or uni-strut.
- Install low voltage cable, tied to containment or anchored to pre-determined route.

- Connect to associated equipment.
- Tidy surplus materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.1.6 Fan coil / AC unit installation

- Competent Operative to erect safe access working platform.
- Perform manual handling risk assessment prior to installing the unit.
- Fix the unit into the correct position making sure that the base of the fan coil unit is levelled horizontally.

2.1.7 Pressure testing pipework

- Pre-use check on all tools and equipment required to undertake the activity.
- Obtain permit to work if required.
- Confirm with management that all persons on site are aware of the activity being undertaken and the associated risks.
- Pressure to be build up in 0.1 bar increments until the system is at the desired pressure.
- Pressure test to be 110% of the maximum working pressure of the system
- Pressure test to be held for a minimum of 15 minutes.
- If leaks are identified, the pressure is to be immediately reduced and the task suspended pending remedial work.
- Following remedial work, recommence with the above procedure.
- If successful, introduce nitrogen (N2) under pressure to the desired pressure within the workpack.
- Test pressure shall not exceed that applied to the components by the manufacturer of the particular component.
- Pressure to be build up in 0.1 bar increments until the system is at the desired pressure.
- Once the test pressure is reached, the nitrogen cylinder(s) should be closed isolated.
- The test pressure in the system should be held for at least one hour but must follow manufacturers specification
- If any leaks are identified, the fault(s) should be corrected and the system re-tested following codes of practice and pressure systems legislation.

2.1.8 Testing & Commissioning

- Request attendance of client to perform the test and commissioning.
- Attain document in writing confirming that Client presence is not required
- Test the pipes for leaks whilst under pressure.

- Perform hydraulic/smoke test and obtain certification from the Client.
- Maintain a 'test certificate' duly signed by the representatives of the client and contractor
- Erect safe working platform where needed by a trained operative
- Reintroduce power to the system.
- Commissioning of the system to be undertaken by a competent person to the manufacturer's specification.
- Sign off the system as required.

3.0 Risk Assessment

Risk Matrix

The hazards and associated risks with this activity have been identified and given a scored rating using semi-quantitative risk assessment methodology.

The risk assessment ratings are a subjective estimate based on the knowledge of the assessor and identify the level of risk without controls and also the level of residual risk once the control measures have been implemented.

To calculate risk rating, and residual risk rating you should multiply the Likelihood (1-5) by the Potential severity of injury (1-5) as depicted below.

Likelihood of injury	4	Low risk	This level of risk is acceptable to the company. Proceed with caution and stop the job if anything changes.
	x		
Severity of injury	5	Medium risk	This level of risk is acceptable to the company if it cannot be reduced further following a review by an Authorised Person within the company.
	=		
Risk/Residual risk	20	High risk	This level of risk is unacceptable and additional controls are needed to reduce the overall level of risk to an acceptable level.

Severity of injury	Likelihood of injury					
		1 Remote	2 Unlikely	3 Possible	4 Probable	5 Certain
	Negligible injury such as bruises and abrasions	1	2	3	4	5
	Minor Injury requiring first aid treatment	2	4	6	8	10
	1-7 day absence from work injury	3	6	9	12	15
	Regulatory reportable injury, disease or event	4	8	12	16	20
	Disability, fatality or injury to the public	5	10	15	20	25

3.1 Mains circuit

Hazard Description: 3.1.1 Mains circuit

Person at risk: Operative performing the work

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	5	All electrical supplies connected to the system shall be Installed by a Registered Sub Contractor, details to be provided along with RAMS for the work.	1
• Fire	x		x
• Electrocution	5		5
• Burns	=		=
• Loss of Power/Services	25		5

3.2 Refrigerant gases

Hazard Description: 3.2.1 Refrigerant system

Person at risk: Operative performing the work, Other Site Operatives

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	Disconnect all hoses slowly and carefully in case of residual liquid remaining in the hose.	1
• Environmental impact	x		x
• Explosion	4	Any additional controls stipulated within the associated COSHH assessment shall be implemented before working with refrigerants.	4
• Chemical burns	=		=
• Freezing	16	Any Operatives working on equipment containing, or designed to hold F-Gas refrigerants are trained and competent with F-Gas and ODS Regulations City and guilds 2079 training, or equivalent. Cylinders are located away from heat sources and always kept in a cool, dry space. Cylinders identified and stored in a segregated area away from incompatible materials. Handle refrigerant following controls stipulated within the associated COSHH Assessment. Lone working is not permitted when charging or decanting refrigerant. Labels are fitted to the system that states the type/specification of refrigerant contained within the system. Only competent and trained engineers shall undertake any charging or decanting of refrigerant. Use mechanical aids for handling equipment for cylinders wherever practicable.	4

3.3 Use of Telehandler

Hazard Description: 3.3.1 Lifting Operations
Person at risk: Operative performing the work, Other Site Operatives

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	Thgis activity will be sub contracted to Davies Crane	1
• Fatality	x		x
• Serious injury	5	RAMS will be provided to cover the works	5
• Collision with temporary and permanent structures	=	All site workers to wear Hi-visibility or reflective clothing.	=
• Collision with pedestrians	20		5

