SRM

Minimum HS&W Standards

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Revision Details:		
Revision No.:	Changes Made:	Date:
00	First revision for early adoption and implementation.	01/02/2022
01	Revised and issued with comments from feedback and consultation.	19/05/2022
02	▪ **2.6 PPE** – removed cut level 3 for manual workers. Now only references cut level C as a minimum. ▪ **2.6 PPE** – the inclusion of security guards to wear body cameras when patrolling outside the project boundary. ▪ **2.8 Daily Activity Briefing** – included check in on operatives fit to work and wellbeing. ▪ **2.11 HS&W Meetings and Workshops** – removed Workforce Engagement Workshop and replaced with Be Safe | Home Safe Workshop ▪ **2.11 HS&W Meetings and Workshops** – included High-Risk Activity Workshop, Incident Kick Off and Incident Closeout Meetings. ▪ **3.1 Health Assessment** – amended baseline frequency of safety critical medicals and health surveillance to prior commencement / initial exposure	

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	and 3 yearly thereafter. Updated list of who needs a Safety Critical Medical and what a Safety Critical Medical must include. ▪ **3.5 Dust / Fumes** – updated to reflect new SRM Management of Dust and Fumes minimum standard. ▪ **4.4 Fire Prevention** – updated to reflect the Fire Prevention on Construction Sites JCOP 10th edition – amendment 1. ▪ **4.7 People and Plant Interface** – updated to reflect changes to People and Plant Interface minimum standard and inclusion of 270° surround vision cameras. ▪ **5.2 Excavators, Telehandlers, Dumpers, Rollers** – included links to People and Plant Interface section. ▪ **5.8 Lorry Loader Swing-Up Type Stabilisers** – new minimum standard to reflect alignment with the Tier 1 H&S Leadership Forum. ▪ **6.1 General Lifting** – explicitly included the wording, Lift Plan and Schedule of Lifts. Also included the requirement that all lifting operations must be planned, reviewed, and accepted before commencement. ▪ **6.1 General Lifting** – where required Trade / Sub-contractors must appoint in writing a trained and competent person to manage lifting operations. ▪ **6.2 Tower Cranes** – stipulated when the deactivation of anti-collision systems is permitted. ▪ **6.2 Tower Cranes** – included sub-section for anti-collision (crash) radios. ▪ **6.7 Cradles – Temporary Suspended Access Equipment (TSAE)** – new minimum standard ▪ **7.2 Mobile Towers and Podiums** – included means of preventing overturning in line with PAS250 / BS8620. ▪ **8.5 Temporary Works** – includes DI checks on trade/Sub-contractors own procedures. ▪ **8.8 Excavations** – included investigatory excavations for geotechnical & geo-environmental purposes.	

1 Introduction

Health, Safety and Wellbeing (HS&W) performance at Sir Robert McAlpine Ltd (SRM) means reducing risk and creating positive working environments.

Safe, which includes health and wellbeing, is one of SRM's five Build Sure pillars for a reason. Health, Safety and Wellbeing is about people, and nothing is more important to us.

This document sets out the Minimum HS&W Standards that must be complied with in SRM workplaces.

These standards are supported and underpinned by the HS&W plans, procedures and policies in SRM's Company Management System.

These standards do not replace any legal obligations (including risk assessment), approved codes of practice (ACOPs), or guidance documents produced by the HSE or other relevant industry bodies.

SRM will communicate with and support all Trade / Sub-contractors to achieve these standards and other requirements.

Non-compliance with these standards is likely to result in works being stopped and / or the commencement of disciplinary proceedings. All costs associated with non-compliance will be at the cost of the relevant sub-contractor.

Joint Venture Projects

Where SRM are involved in Joint Venture projects, these minimum HS&W standards and the minimum HS&W standards of our Joint Ventures partners must be reviewed and compared.

If there are differences between the HS&W standards between joint venture partners, the higher HS&W standards should be applied, unless otherwise agreed by the SRM HS&W Director and the relevant sector's Executive Managing Director.

2 General

2.1 Be Safe Home Safe

We are a family business and will always put people first. At SRM we work safely or not at all.

We expect this from all individuals and every organisation working on our projects and empower anyone to speak up if they have concerns.

2.2 Training and Competence

Competence

Competence is defined as the application of skills, knowledge, experience and behaviours consistently to achieve a specific outcome.

The competence of everyone on SRM projects must be continuously assessed to ensure that people are competent for the tasks they are undertaking.

BUILD UK

Trade / Trade / sub-contractors personnel must meet BUILD UK competence standards in line with the Build UK Partner Card Scheme Matrix. Trade and role specific CSCS cards are required.

These include (non-exhaustive list):

- Managers – appropriate CSCS (Manager) card and SMSTS certificate
- Supervisors – appropriate CSCS (Supervisor) card and either a SMSTS qualifications or SSSTS qualification
- Plant specific CPCS cards, or NPORS cards (with the CSCS logo on the card) for plant operators. ALLMI for lorry loaders
- Relevant CPCS card for those involved in lifting operations
- ECS and or JIB cards for electricians
- CISRS cards for scaffolders and scaffold inspectors
- Relevant IPAF or CPCS training for MEWPS
- PASMA training for those erecting, dismantling, modifying and inspecting / signing off mobile towers

- FASET for those installing safety netting.

BUILD UK Exemptions

The following roles are exempt from the CSCS card scheme on SRM project. However, evidence that these individuals are competent for the tasks they are undertaking is required.

Evidence that a valid and in date CITB Health and Safety Touch Screen Test has been completed is required for all persons listed below:

- Traffic / Plant marshals – evidence of appropriate, accredited theoretical and practical vehicle marshal training, such as CLOCS Site Access Traffic Marshal (SATM) training scheme or equivalent.
- Trades that are not covered by the CSCS scheme, evidence of alternative training and competence must be provided.
- Employees of non-UK based organisations in contract with SRM. Evidence of relevant training is still required as well as demonstration of a clear understanding of UK H&S legislation.

Records

H&S training records must be kept up to date and must be made available on request.

Toolbox Talks

Trade / Sub-contractors must deliver regular toolbox talks to their operatives. Toolbox talks must be relevant to the activities being undertaken and the working environment.

Operatives must receive a toolbox talk fortnightly as a minimum and toolbox talk content and briefing records must be kept on site and made available on request.

2.3 Management and Supervision

SRM

SRM Project Leads will ensure that a suitable number of competent SRM management with SMSTS training are present on site for site works to be undertaken. SRM appointed persons / coordinators must also be present for some works to take place.

In accordance with project working hours, SRM will resource site management against the type of work being undertaken, the number of persons on site, number of work locations and risk profile of work activities.

Some low-risk activities such as monitoring, inspection or low risk aftercare works may not require SRM management to be present on-site full time. For this type of work, SRM management arrangements must be agreed between the contractor and SRM in writing.

Trade / Sub-Contractors

Trade / Sub-contractors are required to provide adequate and competent supervision and management for their own operatives.

SMSTS qualified managers are required to plan, coordinate, oversee and manage groups of workers or a workforce.

SSSTS qualified supervisors are required to supervise site activities.

The number of supervisors and managers required, and whether they should be working or non-working, should be determined via assessment according to activity risk and work location(s). This number must be agreed with the SRM project team.

The SRM minimum requirement for supervision is 1 Supervisor to a maximum 10 Operatives, which is acceptable in low-risk environments only.

The table below, which contains one example trade for each risk rating level, can be used as a guide where works are being carried out in singular work locations.

Risk Rating	Example Trades / Activities	Supervisor / Operative ratio
Low	▪ Painting and decorating (low level) ▪ Installation of permanent boundary fencing	1 - 10
Medium	▪ Hard landscaping ▪ Shallow excavation	1 - 8
High	▪ Steel erection ▪ Deep drainage	1 - 5

2.4 Communication

General

Evidence of effective communication is required for all HS&W critical information.

Trade / Sub-contractors must identify whether communication support is required for their workforce and facilitate where necessary.

Wherever possible, pictures, symbols and nudge communication techniques should be used instead of, or as well as, words to aid effective communication.

English Language

Key HS&W information must be translated / interpreted to persons when required, i.e. to those with a basic understanding of the English language, from English to their mother-tongue.

Translation is required for formal written documents such as RAMS.

Interpretation is required for verbal communication such as Daily Activity briefings and Toolbox Talks.

Evidence of translation / interpretation must be recorded detailing as a minimum the:

- Time and date.
- Language of the translation / interpretation.
- Interpreters / translators name and signature.
- Name and signature of the person(s) being briefed.

When working on site a minimum of 1 interpreter is required per 5 operatives with a basic level of understanding of the English language within the working vicinity.

2.5 Induction

General Induction

All persons working on site and regular visitors must attend an SRM site-specific induction before they are permitted access to site.

Supervisor Induction

In addition to the project specific induction, trade / sub-contractors supervisors are required to attend an SRM Supervisor Induction. Typically, the induction is completed within the first month of joining the project, although project arrangements may differ.

Visitor Induction

All visitors to a project will be given a visitor induction on arrival to site and must be escorted at all times by a nominated person who has received a full site induction.

Re-induction

If someone is away from a project for 30 days, an appropriate reinduction must be attended for full access to be granted. This must be recorded.

It is at the discretion of the SRM project team whether reinduction needs to be a full induction or an orientation detailing as a minimum:

- Significant changes on site
- A refresher on key project HS&W arrangements
- A refresher on significant HS&W risks and controls

SRM project management teams may choose to reduce the 30-day duration above due to risk profile and changing environments.

2.6 PPE

The PPE required for an activity must be determined via risk assessment. The sections below detail SRM minimum requirements. Activity risk assessments may identify the need to go beyond the minimum requirements below.

PPE required must be made available at no cost to the individuals who are required to wear it. PPE must be maintained and kept in good condition and replaced when required.

Trade / sub-contractors supervision and management must ensure that PPE is being worn when required.

General PPE for Site Management / non-manual workers

General Non-Manual Works:					
	Head (BS EN 397)	**Foot** (ISO 20345 with midsole protection and toecap)	**Eye** (BS EN 166 1F or prescribed glasses with side shields)	**Hand** (BS EN 388)	**Hi-Visibility Vest** (BS EN 471 - Yellow)

General PPE for Manual Works

General Manual Works:					
	Head (BS EN 397)	**Foot** (ISO 20345 with midsole protection and toecap)	**Eye** (BS EN 166 1F)	**Hand** (BS EN 388) Cut level C	**Hi-Visibility Vest** (BS EN 471 - Yellow)

The following job specific PPE requirements are also minimum requirements on SRM projects:

Vehicle / Traffic Marshals

- Orange hi-vis vests with Vehicle Marshal or similar on the back
- Orange hi-vis trousers should be considered where marshalling is the main part of a person's role

Slinger / Signaller

- Orange hi-vis vest with Slinger / Signaller on the back

Works on the public highway

- Hi-vis yellow or orange jacket or vest class 3
- Hi-vis yellow or orange trousers class 3

Hard Hat Colours

In line with BUILD UK requirements the following hard hat colours must be worn on SRM projects.

Hard Hat Colours:			
Black	White	Orange	Blue
Supervisors	Site Managers Site Operative Vehicle Marshal	Slinger / Signaller	Visitors

Exemptions from the hard hat colour requirement detailed above apply to environments with client or area specific requirements, such as Network Rail.

Flame Retardant Coveralls

Flame retardant coveralls with high visibility panels must be worn when:

- Operatives are undertaking trial holes or where specified by the utility owner.
- Operatives undertaking hot works such as welding and / or burning operations. Flame retardant gauntlets and safety boots must be worn in addition when undertaking these activities.

RPE

In accordance with Section 21 – Dust / Fumes, where work involves the production of dust and fumes, appropriate RPE must be worn.

Close fitting RPE must be of FFP3 standard. Those wearing close fitting RPE must be face fit tested, clean shaven and face fit records must be made available on request.

Air fed hoods with an APF factor of 20 are also acceptable forms of RPE to protect wearers from dust and fumes.

Concrete

PPE required for the placement of concrete must be identified in the COSHH assessment and communicated to all those involved with the works and exposed to wet concrete.

The following PPE is required as a minimum to protect operatives from exposure of wet concrete.

- Chemical splash resistant coveralls
- Impermeable gloves
- Wellington boots – sealed to protect the ingress of concrete

Body Cameras

Those who are expected to enter / work on public highways as part of their role should wear body cameras, unless they are working within defined 278 work areas, highways and / or works within the public realm.

This includes traffic / gate marshals who are involved in public and road interface on occasion.

Those providing security arrangements and are expected to patrol outside the project boundary / hoarding should wear body cameras.

CCTV in operation signage must be displayed on project hoarding when body cameras are in use.

GDPR policies and privacy notices must be adhered with when handling, viewing and storing footage.

Branding

Unless client requirements state otherwise, Trade / Sub-contractors should ensure that employees are provided with company branded PPE.

It is recommended that all persons working on SRM projects have a sticker on their hard hat showing their name.

2.7 RAMS

All Trade / Sub-contractors must provide SRM with site specific method statements and risk assessments for activities being undertaken.

All risk assessment and safe system of work documentation, including lift plans, must be submitted to SRM for review a minimum of 14 days prior to the activity commencing.

Activities can only take place when SRM have accepted that the documentation meets SRM requirements and is appropriate for the activity, and when the RAMS have been effectively communicated to the workforce.

Regular reviews must be undertaken to ensure that risk assessments and other safe system of work documentation is up to date and reflects how works are being carried out.

RAMS must be updated to reflect any proposed changes in work methodology. Changes to accepted documentation must be re-submitted to SRM and, once accepted, must be communicated to all relevant personnel.

2.8 Daily Activity Briefing

Trade / Sub-contractors must ensure that their operatives receive a daily activity briefing before they start works or if there is a significant change to working arrangements during works.

This briefing must contain key information relating to:

- The day's activity
- Key roles and responsibilities
- Key HS&W, sustainability, or quality risks and controls
- Information relating to other activities or information that may impact their works

Daily Activity Briefings must be recorded and evidence of attendance at them is required. Briefings may be recorded on sub-contractor's own templates or SRM templates can be requested and used.

The Daily Activity Briefing should be used as an opportunity to check in on the operatives fit to work and wellbeing before commencing works.

SRM Management will attend trade / sub-contractors Daily Activity Briefings on a regular basis.

2.9 Permits to Work

Permits to work are required for specified high risk activities. These include Hot Works, Confined Space Entry and others.

Permits to work will usually be issued and controlled by SRM. In some circumstances the relevant SRM responsible person will delegate this responsibility to a competent sub-contractor. If this happens arrangements will be formally agreed in writing.

Responsible persons will be identified during the permit process and these individuals are responsible for ensuring that the permit process is being followed.

All completed permits must be returned to the relevant responsible person and closed out upon completion.

2.10 HS&W Documentation

HS&W documentation required to meet SRM and legal requirements must be kept on site and made available on request.

These include: RAMS, induction registers, training records, daily activity briefing records, RAMS briefings, and plant and equipment inspection records.

Project specific HS&W return requirements will be communicated as appropriate.

2.11 HS&W Meetings / Workshops

The table below is not exhaustive and additional HS&W related meetings and workshops may take place on SRM projects.

Minimum meeting frequencies and attendees are stated below. Project specific arrangements may be enhanced at the discretion of the SRM Project Team.

Title:	What:	When:	Who:
Package Pre-Start Meeting:	A meeting to discuss key project / package arrangements and HS&W risk.	Prior to works commencing.	SRM Package Manager and other suitable SRM representatives. HS&W support attendance is recommended for high-risk packages. Trade / sub-contractors – the person who is managing the works on site and other suitable representatives (e.g. trade / sub-contractors HS&W support)
Be Safe | Home Safe Workshop:	An interactive behavioural based HS&W workshop.	Ideally during their first month on the project, although project arrangements may differ.	All trade / sub-contractors and SRM personnel.
Supervisor Induction:	An interactive Supervisor induction.	Ideally during their first month on the project, although project arrangements may differ.	Trade / sub-contractors and SRM Supervisors.
Worker Consultation Meetings:	A forum for operatives to discuss how things are going on the project.	Monthly	A minimum of one operative from every Trade/sub-contractor. Increased numbers may be required as directed by the SRM Safety Leadership Team.
Project HS&W Meetings:	A meeting for Supervisors and Managers to discuss and review HS&W performance on the project.	Monthly	SRM Management and trade / sub-contractors supervisors / managers.
Site Coordination Meetings:	A meeting to review the effectiveness of works and to plan and coordinate future work activities and logistical arrangements.	Daily / Weekly	SRM Management and trade/trade / sub-contractors supervisors / managers.
Safety Leadership Team initiatives:	Initiatives can range from collaborative HS&W reviews to site wide 'Time out for Safety' talks.	As directed by the project Safety Leadership Team.	As directed by the project Safety Leadership Team.
High-Risk Activity Workshop:	An opportunity to collaboratively review the plan and control measures for high-risk activities.	Before the commencement of a high-risk activity.	Led by the contractor undertaking the works. SRM Management and trade/trade / sub-contractors supervisors / managers.
Incident Kick Off Meeting:	A meeting to review and discuss a significant incident and agree actions going forward. Level 4 or 5 incident (High Potential or actual).	As soon as possible after the event – within 24hrs.	Chaired by the responsible person. Attendees as required in the SRM Incident Severity Matrix.

Title:	What:	When:	Who:
Incident Closeout Meeting:	Closeout meeting where the incident root cause and learning outcomes are shared. Level 4 or 5 incident (High Potential or actual).	Upon the completion of the incident investigation.	Chaired by the Lead Incident Investigator and supported by the responsible person. Attendees as agreed in the Incident Kick Off Meeting.

If the trade / sub-contractors has their own behavioural safety programme, this will be reviewed by SRM and if accepted may negate the need for the trade / sub-contractors to attend SRM's 'Workforce Engagement Workshop'.

SRM project teams welcome collaborative (SRM and trade/sub-contractor) delivery of the Workforce Engagement Workshop where this is possible.

SRM project teams may explore collaborative delivery options with Trade / Sub-contractors on a project-by-project basis.

2.12 HS&W Monitoring and Support

SRM

SRM Management regularly monitor HS&W compliance and carry out regular HS&W audits and inspections.

Trade / Sub-contractors are required to support the close out of any action items raised against them within agreed timescales.

Supervision and Management

Trade / Sub-contractors must have their own HS&W monitoring regimes relating to HS&W compliance which involve their own supervision and management.

HS&W Professionals

Qualified Health, Safety and Wellbeing professionals representing Trade / Sub-contractors must also complete inspections and audits on a regular basis.

The frequency of these visits is to be agreed in the project pre-start meeting according to the package risk profile.

The table below is a guide on how frequent these visits / inspections should be according to package risk profile.

Risk Profile:	Frequency:
High:	One visit / inspection per week
Medium:	One visit / inspection every two weeks
Low:	One visit / inspection per month

2.13 Incident Management

All HS&W incidents must be reported to SRM as soon as reasonably practicable (typically this will be immediate on the day of the incident) and must be investigated.

SRM require a collaborative, open and transparent approach to all incident investigations to promote just culture and learning.

Investigations must aim to identify root cause and identify what action is required to prevent the incidents from happening again.

Investigation reports and supporting documentation must be given to SRM site management as soon as they are available.

Interim incident reports must be submitted to SRM within 24 hours of the incident occurring, or from when the incident is known.

The trade / sub-contractors must fully cooperate with SRM during incident investigations and learning must be shared to all relevant parties as soon as it is possible to do so.

SRM require that copies of notifications to or correspondence with the HSE and other authorising bodies to be shared with them.

2.14 Discipline and Reward

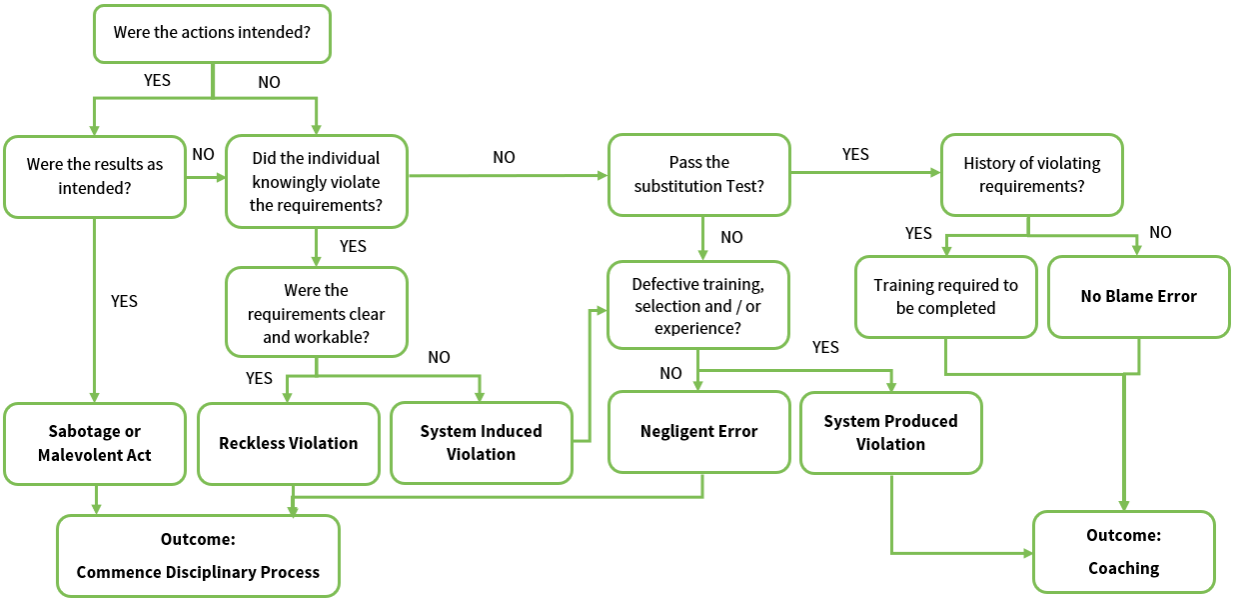
Discipline

Non-compliance with these standards is likely to result in works being stopped and / or the commencement of disciplinary proceedings.

Trade / Sub-contractors are expected to take the lead in disciplinary proceedings with their own employees in line with the framework of a 'Just Culture' model.

The SRM Just Culture model below can be used for reference.

Just Culture Model



Just Culutre Definitions

- **Violation** – Conscious decision to break or bend the rules – there must have been a known rule or procedure.
- **Error -** Slip (when a person does something but not what they mean to do) OR lapse (when a person forgets to do something – both are unintended actions with unintended consequences.
- **Mistake** – A person does something they intended to do, but should have done something else. Either rule based (choosing a standard solution for a known problem) or knowledge based (working from first principles).
- **The Substitution Test** – Where an individual of similar background, training and experience; working under the same environmental and situational circumstances may have made the same judgement/taken the same action.

SRM will engage in disciplinary proceedings with trade / sub-contractors personnel if they feel that appropriate disciplinary action is not being undertaken by the relevant sub-contractor.

Any SRM engagement in disciplinary proceedings with trade / sub-contractors personnel will be recorded in writing and sent to the relevant sub-contractor.

Reward

Trade / Sub-contractors are also expected to reinforce good HS&W performance and culture with their own reward and recognition schemes.

SRM have various individual and contractor reward and recognition initiatives to positively reinforce high levels of HS&W performance and culture.

2.15 Vulnerable Persons

Arrangements and risk assessments must be in place to protect vulnerable persons in the work place, such as expectant mothers and young people.

Additional controls are also required to protect visitors to our workplaces. SRM permission is required for visitors to access SRM workplaces.

2.16 Lone Working

Lone working must be avoided wherever possible.

Where lone working cannot be avoided, suitable risk assessments are required, which must include:

- Contact and communication arrangements.
- Emergency arrangements as a minimum.

3 Health and Wellbeing

3.1 Health Assessment

Health Surveillance Strategy

A health surveillance strategy is the overall approach of checking and monitoring people's health.

Occupational health risk assessments should be completed to help develop and determine what the health surveillance strategy looks like.

Any activity / exposure that causes ill health must be included in an occupational health risk assessment and subsequent health surveillance strategy.

Advice and input from an occupational health professional should be sought when developing a health surveillance strategy.

The following tables must be complied with and health assessment strategies as well as evidence of them being implemented must be made available on request.

Evidence of in-date 'Safety Critical' Medicals must be provided to SRM before those involved in 'Safety Critical' work activities start work.

Category Profile Table

Category Profile:	Descriptor:	Example Job Roles: (Non-exhaustive lists)
Category 1 'Safety Critical'	Where the ill health of an individual may compromise their ability to undertake a task defined as safety critical, thereby posing a significant risk to the health and safety to themselves or others.	▪ Crane Drivers, Crane Coordinators, Lifting Supervisors and Slinger Signallers ▪ Plant operators and piling rig attendants ▪ MEWP operators – 1b and 3b ▪ Vehicle and Plant Marshals ▪ Welders ▪ Persons that cannot always rely on collective fall prevention when working at height including scaffolders, steel erectors, abseilers, steeplejacks, persons involved in crane erection / dismantling etc. ▪ Persons working in confined spaces, who are required to wear rescue breathing apparatus **NOTE:** Workers who enter and work in confined space wearing a compressed air breathing apparatus will require a specific **compressed air breathing apparatus (CABA) medical**. ▪ Persons working on or next to highways (high speed) ▪ Electrical Appointed Persons – HV / LV
Category 2 'On the Tools'	A person who is likely to be regularly exposed to risk from health hazards after control measures have been applied.	▪ Construction Site Operative ▪ Carpenter ▪ Demolition Operative ▪ Groundworker ▪ Electrician ▪ Dry liner
Category 3 On Site but not 'on the tools'	A person who visits sites / projects on a frequent basis, not undertaking the work but with some exposure to health hazards, whilst wearing appropriate PPE.	▪ Site Managers ▪ Other construction professionals (Quantity Surveyors, Planners, Designers)

Category 4 'Office based'	A person who is based in an office for the majority of their role and / or has no significant exposure to health hazards, (other than those related to DSE where applicable).	▪ Office administrators and other office workers

Health Assessment Table

Category Profile:	Type of Health Assessment Required:	Health Assessment Specifics:	Evidence of Compliance:	Frequency of Assessment:
Category 1 'Safety Critical'	A specific health assessment is required to ensure that a person is fit to carry out safety critical activities.	The assessment must include: ▪ Physical / musculoskeletal assessment ▪ Respiratory test (lung function test) ▪ Audiometry test (hearing test) ▪ Blood pressure check ▪ Urinalysis ▪ Eye test including visual acuity ▪ Mental Health Assessment Consider drug and alcohol testing. Recommended annual health questionnaire.	Persons are not permitted to carry out works in a Safety Critical role on a SRM Project without evidence that they have passed a Safety Critical Medical.	Before commencement of works, then every 3 years thereafter or Annually for those aged 60 and above. Recommended annual health questionnaire. However, this may be more frequently subject to risk assessment. **NOTE:** The confined space CABA medical is an annual assessment.
Category 2 'On the Tools'	People in this category should be engaged in a health surveillance programme to check that control measures are working.	Surveillance should be specific to the risks workers are exposed to and every employer should carry out a risk assessment detailing their health surveillance strategy. Health surveillance typically includes; ▪ Muscoskeletal checks ▪ Skin health checks ▪ Respiratory health checks	SRM will expect all Trade / Sub-contractors to demonstrate their health surveillance strategy when requested.	Before initial exposure, then every 3 years thereafter or Annually for those aged 60 and above. Recommended annual health questionnaire.

		▪ Audiometry health checks ▪ Vibration health checks (where relevant) Recommended annual health questionnaire.		However, this may be more frequently subject to risk assessment.
Category 3 On Site but not 'on the tools'	These people should have the opportunity to complete an annual health questionnaire or fit for work medical.	Typically include, or other relevant assessment according to the hazard's individuals are likely to be exposed to; ▪ Muscoskeletal health ▪ Skin health ▪ Audiometry health ▪ Respiratory health Recommended annual health questionnaire.	Evidence to be made available upon request.	Before initial exposure then every 3 years or Annually for those aged 60 and above Recommended annual health questionnaire. However, this may be more frequently subject to risk assessment.
Category 4 'Office based'	People in this category are subject to DSE assessments where applicable.	DSE briefings and assessments if they are defined as a DSE user. Persons may be referred to an occupational health specialist if further assessment / review is required.	Evidence to be made available upon request.	Typically, an annual DSE assessment unless circumstances change. However, this may be more frequently subject to risk assessment.

Occupational Health Professionals

All contractors must have access to qualified occupational health provider or medical specialist.

Health assessments and health surveillance must be carried out by qualified occupational health or medical specialists, and where applicable in line with relevant legal requirements for specified risks such as asbestos and lead.

Night Works

Night work is defined as works that take place between midnight and 7am.

The following must be in place for all persons carrying out nightworks prior to nightworks commencing:

- Individuals must be offered a health assessment by a qualified occupational health or medical specialist and complete a health questionnaire

- Individual risk assessments must be in place for all those carrying out night works

Lone Workers

Lone working must be avoided where possible.

The following must be in place for all persons carrying out lone working prior to works commencing:

- Individual risk assessment developed for all those carrying out lone working – this will determine the level of health assessment required

- Individuals must be offered a health assessment by a qualified occupational health or medical specialist and complete a health questionnaire

Medical Surveillance

Medical surveillance is a statutory health check that is required for some job roles in line with relevant legislation, such as:

- Asbestos
- Lead
- Ionising radiation
- Compressed gas
- COSHH – substances identified in schedule 6

These medicals must be completed by a HSE appointed doctor before initial exposure and annually thereafter.

Record Keeping

All records must be collected, handling and processed in line with GDPR requirements.

Health Records

A health record is a legal document / output from the health surveillance strategy. This includes vibration monitoring records, face fit testing, individual air monitoring etc.

Evidence (register not containing results, confirmation from employer etc.) of valid and in date health surveillance / assessments must be provided to SRM when requested.

The employer must keep health records for a minimum of 40 years and a copy should also be issued to the employee upon request.

Medical Records

Medical records must be kept in medical confidence by the occupational health professional. This includes confidential clinical notes, test results and other information about the employees' health.

These records can only be accessed by the employer after written consent from the employee.

The employer must keep evidence of completed medicals for a minimum of 40 years.

3.2 Mental Health

SRM require all Trade / Sub-contractors to have measures in place to help reduce mental health risk, and to support the positive mental health of, and safeguard their workforce.

Measures could include: a mental health policy, mental health risk assessments, provision of mental health first aiders, access to and promotion of mental health resources.

SRM will promote and communicate mental health initiatives and mental health support, such as access to SRM Mental Health First Aiders in all workplaces.

Trade / Sub-contractors are encouraged to engage with all SRM lead mental health initiatives and support.

3.3 Fatigue

General

The risk of fatigue must be considered and managed on all SRM projects.

Trade / Sub-contractors must review the logistics arrangements of their employees to account for suitable rest times between shifts and reduce the need for excessive travelling where possible.

If the sections below are breached, works must cease, and workplace access will not be permitted.

Working Hours

If the working hours of those carrying out manual works exceed 60 hours per week, risk assessments must be in place and accepted by SRM, to detail how fatigue is being managed.

Specific fatigue risk assessments must be in place for planned single shifts that will or are likely to last for more than 12 hours.

Consecutive Days

All persons must have 1 day off in every 7 days, which can average out as 2 days off every 14 days.

No one is permitted to work 12 consecutive days in a row.

3.4 Noise

Hierarchy of control

In line with the Noise at Work Regulations, the hierarchy of control below must be followed to manage noise effectively.

Eliminate (design, planning and selection), Substitution, Engineering Controls, Administrate Controls and PPE.

Risk Assessment

Risk assessments must be produced to demonstrate how the risk of noise is being managed.

Where noise reduction or protection measures are to be used, noise reduction ratings of controls must be included in the risk assessment.

Active Hearing Protection or Custom Moulded Silicone Earplugs that reduce mid-high level Hertz frequency

Active hearing protection is any type of device that features electrical or digital components that are used to actively suppress or amplify noise from users' surrounding environments.

Custom Moulded Silicone Earplugs that reduce mid-high level Hertz frequency and allow for face-to-face conversation.

Active hearing protection or custom moulded silicone earplugs that reduce mid to high level frequency are required when:

- Not being able to hear creates risk to the health and safety of those wearing the hearing protection or others around them. This is to be determined via risk assessment.

Those involved in activities creating the noise:

- Are exposed to 85dB(A) and over for more than 1 hour a day / per shift
- and / or exposed to 85dB(A) and over for 30 minutes at one time

Monitoring and Management

Organisations undertaking activities creating noise are responsible for monitoring noise levels and protecting others from the hazardous noise exposure.

This includes the supply of PPE for those affected if other controls are not effective.

3.5 Dust / Fumes

Hierarchy of control

In line with the SRM Management of Dust and Fumes minimum standard, the hierarchy of control below must be followed to manage dust and fumes effectively.

Eliminate (design, planning and selection), Remove, Reduce, PPE / RPE and Exclude.

Risk Assessment

Risk assessments must be produced to demonstrate how the risk of dust and fumes is being managed.

Control Measures

Control measures for all dust and fume generating activities must include dust and fume extraction or suppression in line with HSE guidance / requirements and RPE.

Control measures for fume generating activities will typically include air monitoring.

The organisation creating the dust or fumes is also responsible for ensuring others are not affected by dust and fumes arising from their works.

Dust Extraction

Types of extractors used for dust must be determined via risk assessment. However, all extractors used on SRM projects must be M (Medium) or H (High) class.

Extraction systems must be fully compatabile with plant and equipment they are being used with.

Vacuum

M or H Class vacuums should be used in preference of brooms.

Brooms are to be used as a last resort only, and, if used, operatives must wear RPE in accordance with the section below and surfaces must be dampened down during use.

Local Exhaust Ventialtion (LEV)

Competent persons must be involved in the design, installation, inspection and maintenance of local exhaust ventilation systems.

RPE Requirements

Close fitting RPE must be of FFP3 standard. Those wearing close fitting RPE must be face fit tested, clean shaven and face fit records must be made available on request.

Non-powered RPE is not effective unless it is able to fully seal to a person's face.

There are different types of RPE which are suitable for different types of dust.

- The majority of construction dust requires an assigned protection factor (APF) of 20.
- APF of 20 – means a mask with an FFP3 filter or powered RPE such as an air fed hood.

Air fed hoods with an APF factor of 20 are also acceptable forms of RPE to protect wearers from dust.

The correct RPE must be used to protect people from fumes when they are present. See the SRM Management of Dust and Fumes minimum standard for types of filters.

Further Support

Further information and support can be found in the SRM Management of Dust and Fumes Minimum Standard.

3.6 Vibration

Hierarchy of control

In line with the Control of Vibration Regulations, the hierarchy of control below must be followed to manage vibration effectively.

Eliminate (design, planning and selection), Substitution, Engineering Controls, Administrate Controls and PPE.

Risk Assessment

Risk assessments must be produced to demonstrate how the risk of vibration is being managed.

Vibration exposure action and limit values and arrangements to control exposure must be identified within the risk assessment and communicated to those involved in the activity.

Monitoring

Vibration exposure must be monitored, and records of exposure must be made available on request.

3.7 Manual Handling

Hierarchy of control

In line with the Manual Handling Operations Regulations, the hierarchy of control below must be followed to manage manual handling effectively.

Avoid, Assess, Reduce.

Mechanical equipment should be used wherever possible to eliminate or reduce the risk of manual handling.

Risk Assessment

Manual Handling Risk assessments must be developed to demonstrate how the risk of manual handling is being managed.

Manual Handling Assessment must be completed in the TILE (HSE Task, Individual (Team), Load, Environment) or MAC (HSE Manual Handling Assessment Chart) format.

As a minimum, formal manual handling specific risk assessments are required for:

- Regular manual handling operations
- The lifting of items that weigh 20kg and above

Training

Risk assessments will identify the type and level of manual handling training required for individuals involved in these activities.

As a minimum, formal manual handling training is required for individuals involved in:

- Regular manual handling operations
- The lifting of items that weigh 20kg and above

Training must be carried out a regular intervals and formal records, when required, must be made available on request.

3.8 General COSHH

Hierarchy of control

In line with the COSHH Regulations, the hierarchy below must be followed to manage COSHH effectively.

1. Eliminate
2. Use a safer product
3. Change the form of the product
4. Change the process
5. Enclose the process to prevent the product escape
6. Extract emissions of the product close to source
7. Reduce the number of people exposed
8. PPE

Risk Assessment

Risk assessments must be produced to demonstrate how the risk of COSHH is being managed and safe arrangements.

COSHH risk assessments must include, as a minimum:

- Safe usage
- Details on how the product will be used / applied and the expected duration
- Area specific information reflecting where the product will be used / applied
- Storage arrangements
- PPE required
- Emergency Arrangements
- Disposal arrangements

Training

Those involved in writing COSHH risk assessments and managing safe use of COSHH materials must be trained and competent to do so.

As a minimum, attendance at an accredited COSHH Coordinator training course is required.

COSHH Register

Trade / Sub-contractors must maintain an up-to-date COSHH register detailing the COSHH materials that they have on the project. The COSHH register must be accessible at all times.

Communication and Security

Storage containers used for COSHH products must highlight what COSHH product is inside the container.

Current UK COSHH warning symbols must be displayed to warn people of the dangers of the product(s) as appropriate.

COSHH products that could cause harm to others must be secured and access to them must be restricted to authorised personnel only.

3.9 Lead

Hierarchy of control

In line with the Control of Lead at Work Regulations, the hierarchy below must be followed.

1. Avoid
2. Minimise disturbance
3. Reduce exposure
4. PPE
5. Warn and Exclude

Surveys

Where it is likely to be present adequate surveys must be undertaken to determine the presence and amount of lead.

The complexity and quantity of lead should be considered when selecting the level of the survey.

RAMS

Risk assessment controls must be recorded in line with the likely exposure to lead during the work activity.

These typically include health surveillance, blood lead monitoring (pre-start) and ongoing, airborne exposure monitoring and the wearing of respiratory protection.

Safe working methods must be deployed to minimise the risk of exposure to those carrying out the works and others.

Induction

Site specific lead information must be provided during the site inductions of existing premises and buildings if it is present.

Awareness

All those working with, supervising and managing works involving lead must have received a lead awareness briefing that includes:

- legal requirements
- health effects of working with lead
- identification of lead
- working with lead, hierarchy of controls

Warning Signage

Warning signage should be installed, where possible to highlight the presence of lead that has been identified or accessible areas that have the potential to contain lead.

3.10 Asbestos

General requirements

In buildings and premises built prior to the year 2000, duty holders must ensure that asbestos surveys appropriate to the work that is going to be undertaken are completed prior to works commencing.

If SRM have reason to believe that asbestos surveys carried out prior to its involvement in the project are inaccurate, new asbestos surveys will be undertaken at the cost of the duty holder.

The HSE must be notified of any notifiable asbestos removal works and SRM must be given a copy of these notifications.

Communication

On projects where asbestos is known, SRM will advise relevant Trade / Sub-contractors of its presence and known locations and control measures to keep everyone safe from exposure.

Competence

Those carrying out asbestos surveys must be UKAS accredited organisation.

Clearance testing must be carried out by a UKAS accredited organisation.

Licenced asbestos removal works must be carried out by licenced asbestos contractors.

Documentation and Records

SRM will require records of all relevant documentation relating to asbestos, such as surveys, testing, inspection, clearance records and waste transfer notes.

Training and Awareness

All those working in areas in which asbestos is or could be present, who may, during their normal work activities, disturb asbestos, must have completed asbestos awareness training.

It is recommended that the asbestos awareness training attended is accredited by UKATA, UKAS or other accredited asbestos training bodies.

Asbestos awareness refresher training must be completed annually when working in areas where asbestos might be present.

3.11 Drugs and Alcohol

Limits

The table below highlights permissible alcohol limits in SRM workplaces, client limits may vary and will be communicated as appropriate.

Country:	Micrograms per 100 millilitres of breath:
England, Wales and Northern Ireland	35µg
Scotland	22µg

No illegal drugs are permitted.

Prescribed medication must be declared to the individuals line manager at the earliest opportunity and recorded on the individual's occupational health record before the notification of D&A testing.

Testing

SRM carry out 'random' D&A testing at all SRM workplaces. SRM also reserve the right to carry out 'for cause' testing if we have reason to believe that people may be under the influence.

'Pre-start' D&A testing is undertaken on some SRM projects before access is granted. Where this is required, Trade / Sub-contractors will be informed by SRM management.

Refusal to take a test is the same as failing a test.

Test results

Test results will return as one of the following:

- Negative – no action required; the individual can continue to work.
- Non-negative – the test sample must be investigated further and is sent away for a laboratory for further testing to obtain the result. Individuals will not be permitted to work on an SRM workplace until the result returns as negative.
- Positive – the individual has failed the test – see below.

Failure

Trade / sub-contractors personnel who fail a test will not be allowed to work on an SRM project again for a minimum period of 3 months.

Individuals will only be permitted to work on an SRM project again if a rehabilitation / support plan is accepted and signed off by the Sector Director and the Head of HS&W for the respective sector in which the individual failed the test.

Support

It is recommended that, where required, individuals who have failed a test are offered support to safeguard them from substance abuse that could affect their health or wellbeing.

4 Logistics

4.1 Site Security

Risk Assessment

Security risk assessments will be undertaken on all SRM projects to determine the level of risk and controls required to keep the project secure.

All static SRM projects valued over £20 million and /or lasting over 6 months will install CCTV unless 24-hour security is present.

Lawful and Unlawful Visitors

Suitable external and internal security measures must be in place to protect both lawful and unlawful visitors entering the project.

Hoarding and Fencing

Fixed perimeter hoarding and fencing must be a minimum of 2.4 metres high and installed as per its temporary works design.

Heras fencing can only be considered as perimeter hoarding as a last resort for temporary periods which last no longer than 6 weeks.

Where Heras fencing is required longer than 6 weeks, a thorough and robust risk assessment must be developed and accepted by the SRM Project Lead justifying why more permanent, fixed security solutions are not being installed.

Visual and formal temporary works checks must be carried out before existing hoarding or fencing is accepted or used.

Daily visual and weekly recorded inspections must be carried out on all perimeter hoarding and fencing to ensure it is in good condition as per the temporary works design / manufacturer's instructions.

Warning Signage

Warning signage must be installed on perimeter hoarding or fencing to warn members of the public of the dangers beyond it and that access is for authorised persons only.

If CCTV is in operation, warning signage must be in place to inform of its presence.

Access Controls

One of the following access security controls is required to prevent public access, in order of preference:

1. Electronic access turnstile and site security
2. Person manning entry point – i.e. site security
3. Closed doors / gates with locks

Security Personnel

All security personnel must hold the appropriate SIA licence for their role.

4.2 Welfare Arrangements

General

Suitable and sufficient welfare provision will be available for all those working on all SRM projects. Welfare provision will take into account peak numbers of personnel on the project.

Separate toilet and changing facilities will be provided for both male and female members of the workforce.

All welfare areas will be regularly cleaned and inspected to ensure that they are in good working order.

Welfare arrangements will include:

- Changing / drying rooms
- Site canteen
- Toilet facilities
- Provision of sanitary product disposal in female / unisex toilets
- First aid room / area
- Induction room / area
- Office areas

Welfare arrangements may include:

- Serviced canteen
- Multi-faith toilets
- Reflection / prayer rooms
- Break out areas
- Wellbeing hubs

Transient Construction Sites

A transient construction site is either a short duration project, a project carried out over multiple locations or a longer duration project that is carried out while moving over a large geographical area e.g. roadworks, highway maintenance etc.

In these instances, static welfare provisions can be difficult to provide. Where this is the case, the below hierarchy should be considered and reviewed.

Type of Welfare:		Comments:
1	Fixed / static welfare installation	Connected to water, foul and power mains. Arrangements identified above in the Welfare General section must be applied.
2	Portable welfare unit	Flushing units with portable water bowser and waste storage tanks. With sufficient washing facilities, seating and table, heating, and changing facilities.

Type of Welfare:		Comments:
3	Portable / towable welfare unit	Consisting of chemical toilet, sufficient washing facilities, seating and table, heating, and changing facilities.
4	Welfare vehicle	Consisting of chemical toilet, sufficient washing facilities, seating and table, heating, and changing facilities.

Welfare arrangements for transient sites must be frequently inspected, cleaned and maintained to ensure suitability and good working order.

After Care Works

Suitable welfare arrangements for after care works must be confirmed and agreed with the facilities manager responsible for the property.

Where suitable arrangements cannot be provided, the above transient site welfare table must be reviewed implemented.

Trade / sub-contractors welfare

Trade / Sub-contractors who wish to provide additional welfare for their workers can only do so if this is agreed with SRM management.

Detailed welfare proposals must be submitted to SRM for review and approval before they are installed.

4.3 Emergency Arrangements

First Aiders

Trade / Sub-contractors must have an adequate number of fully qualified, 3 day - First Aid at Work, first aiders for the works they are undertaking. This should include suitable coverage for holiday and unexpected leave.

The number of first aiders required for the project should be determined via risk assessment.

On SRM projects, a minimum of 1 person in 25 must be a trained first aider, who has attended a 3-day First Aid at Work qualification.

This minimum ratio applies at all times the project is operational and also applies to out of hours works.

First aiders must be easily identifiable and known to the workforce.

First Aid Equipment

First aid room requirements and first aid equipment on site must be sufficient for the type of work being undertaken. This should be determined by a First Aid Needs Risk Assessment.

The First Aid Risk Assessment must be reviewed regularly to ensure arrangements remain suitable and sufficient.

First aid room and first aid equipment checks must be carried out on a regular basis to ensure that they are in good condition and of sufficient supply.

All SRM projects will have access to an Automated External Defibrillator.

Rescue

Activity specific rescue plans are required for all works from which non-walking injured persons could not be taken to a place that an ambulance could access.

Rescue teams and rescue equipment must be available at all times during the relevant work activity.

Rescue drills must be:

- Undertaken prior to works commencing, wherever possible
- Undertaken at regular intervals as determined by the activity risk assessment
- Recorded to evidence that they have been carried out (photos to be included where possible)

Emergency Support

SRM Fire and Emergency Coordinators and Office Fire Marshals will take control of fire and emergency arrangements in accordance with workplace specific Fire and Emergency Plans.

In the event of an emergency, Trade / Sub-contractors are responsible for making sure that their people evacuate and are accounted for at evacuation muster points or arrangements where a disperse procedure is implemented.

Due to the nature of a project and location, there may be occasions where other emergency arrangements are required e.g. an ‘evacuation’. These arrangements will be communicated by the SRM project management team as appropriate.

Trade / Sub-contractors must support and cooperate with the SRM Fire and Emergency Coordinator when requested.

4.4 Fire Prevention

General

The SRM project team will develop the Project Fire and Emergency Plan and the Fire Risk Assessment at the pre-construction phase.

Trade / Sub-contractors will be provided with a copy of the Project Fire and Emergency Plan prior to commencing works and updates as required.

The trade / sub-contractors must co-operate and adhere to the requirements identified within the plan.

Fire Risk Assessment

The below courses will define an individual as a 'competent person' to undertake a fire risk assessment (in all but the most complex sites) under the Regulatory Reform (Fire Safety) Order:

- Level 3 Certificate in Fire Risk Assessment (RQF Level 3).
- Level 4 Diploma in Fire Risk Assessment (RQF Level 4).

Companies / consultants undertaking fire risk assessments must be certified by a UKAS accredited body.

High Fire Risk Project

If any of the points below apply, the project is defined as a high fire risk project:

- **High-rise construction** = a site where an assessment undertaken by a competent person identifies that the workforce is at risk due to the height of the building under construction and the associated complexity of the means of escape.

  The risks associated with the nature of construction and project progress should be considered alongside the likely response from the fire and rescue service in terms of timelines and available appliances.

- **A large project** = project value of £20million or above.

- **A large timber framed structure** = Timber framed structures (including other systems such as glued laminated timber (glulam) and cross laminated timber construction (CLT) of four or more storeys and / or an aggregate floor area 2500m^2 or more.

- Or where the fire risk assessment indicates significant potential loss of life and / or property.

The above definitions have been provided from the *Joint Code of Practice on the Protection from Fire of Construction Sites 10th edition*.

Material Storage

Combustible materials should be stored outside the building under construction or undergoing refurbishment and should not be so close to it that fire is able to spread from the materials to the building.

Storing of materials in locked metal containers is recommended on all sites, but is especially on high risk fire projects.

Where combustible materials are stored inside the building, the area used for storage should:

- Risk assessed.
- Have controlled access.
- Not be in an area where hot works is being carried out.
- Either be within the area covered by the site fire detection system or be included on the route of regular fire checks.
- Have firefighting equipment located nearby.

Combustible materials, packaging and wrapping should be avoided wherever possible and must be removed or covered with a layer of material conforming to LPS 1207 or Warrington fire technical schedule 63 as soon as it arrives on site.

Hot Works

The SRM Hot Works permit system must be adhered to for all hot works activity. SRM must review and accept the permit before hot works is authorised to commence.

The trade / sub-contractors will provide a minimum of 2 fire extinguishers during hot works. The fire extinguishers must be applicable to the risk. At least 1 fire extinguisher must be water or foam based with a minimum of a 13A rating.

Operatives carrying out hot works and undertaking the fire watch must be suitably trained in the use of the fire extinguishers. Evidence of training must be available when requested.

Screens and shields must meet the requirements of BS EN25980 or welding blankets where practicable.

Upon completion of hot works, the work area must be monitored for at least 2 hours. This is made up by:

- Continuous active monitoring for at least 1 hour.

- Further interval checks every 15-20 minutes for a further 1 hour.
- Duration of the monitoring may be extended for high risk works and / or location. This is subject to risk assessment.

During closeout of the works hots permit, photographic evidence of the immediate vicinity including voids and other high-risk areas must be attached to the permit.

The use of thermographic cameras to support the closeout of hot works permit should be considered.

Temporary fire stopping

- All works must fully comply with current legislative requirements and relevant Fire JCOPs.
- Horizontal and vertical compartmentalisation requirements are detailed in Project Fire and Emergency plan and Fire Risk Assessment.
- Material used for temporary fire stopping must offer a minimum of 60-minute fire protection, unless greater protection is specified.
- If penetrations through fire stopping is required for works, SRM must be informed of the intention prior to works commencing and be informed when works are complete. These activities will typically be controlled under an SRM permit to work.

Permanent fire stopping

- Organisations installing fire stopping products must have a third party UKAS accreditation.
- Operatives installing fire stopping products must have evidence of training such as an NVQ level 2 in fire stopping.
- Operatives must be trained in the installation of the products they are installing. Evidence of this must be made available on request.
- All permanent fire stopping must be tagged and identified electronically.

Penetrations through fire stopping

- If penetrations through fire stopping is required for works, SRM must be informed of the intention prior to works commencing and be informed when works are complete
- These activities will typically be controlled under an SRM permit to work

Fire Doors

- Temporary and permanent fire doors must be installed by accredited companies and by qualified installers

- SRM require all fire doors to be manufactured and supplied as certified door sets with third-party accreditation. The two most common certifying bodies in the UK are BM TRADA or the British Woodworking Federation (BWF).

- Installation of BM TRADA doors must be underwritten by an installer or supervisor who is registered by BM TRADA in order to gain their Q-Mark seal of approval.

Inspection

- All firefighting and fire prevention equipment is subject to daily visual inspections and weekly formal inspections.

- Fire alarm and detection systems must be tested regularly, and testing records must be maintained.

- Emergency escape lighting must be inspected regularly, and testing records must be maintained.

4.5 LPG, Highly Flammable Liquids (HFL) and Compressed Gasses

General Requirements

Use of LPG, HFL and compressed gasses must meet the following requirements:

- Cylinders must be stored upright, outside in a safely secured compound, not less than 6 metres from any building. Where this is not achievable due to the project footprint or other logistical issues, alternative storage details must be included within the fire risk assessment.

- These materials must be stored a minimum of 20 metres away from timber frame buildings.

- Empty cylinders must be segregated from others in storage compounds and should be safely removed and correctly disposed of when not in use.

- Oxygen cylinders must not be stored with flammable gasses and HFLs.

- Cylinders must be fitted with the correct regulators, hoses, crimped connections, gauges and flashback arresters.

- A flashback arrestor will be fitted onto / near the regulator. Where hoses are laid out over long distances, a flashback arrestor will be fitted onto both the torch and regulator.

- There will be suitable numbers of fire extinguishers at storage locations

- Limits on amounts permitted to be stored on site are to be determined by the SRM Fire and Emergency Coordinator

Acetylene can only be used upon the development of a thorough and robust risk assessment which has been accepted by the SRM Project Lead and a senior member of the HS&W team.

4.6 Vulnerable Road Users

General

As a CLOCS (Construction Logistics and Community Safety) Champion, SRM encourage all Trade / Sub-contractors to adopt the CLOCS Standard.

All vehicles over 3.5t could be subject to CLOCS site checks prior to entering site.

All vehicles providing goods and services to SRM projects must hold FORS Silver accreditation as a minimum. Vehicles that do not meet this standard may be turned away and refused entry to site.

Exemptions

There are a few instances in which achieving FORS Silver accreditation may not be achievable due to the type or location of the delivery, or the type of vehicle being used.

On these occasions, compliance with FORS Silver vehicle safety equipment requirements should be installed on the vehicle wherever practicable.

A FORS Silver exemption letter must be completed to justify why FORS Silver cannot be achieved, and then submitted to SRM for review and approval.

If this exemption is approved by SRM management, the delivery can be arranged and will be granted access.

4.7 People and Plant Interface

The following hierarchy of control must be implemented to reduce the risk of people and plant interface where possible.

Elimination, Substitution, Engineering Controls, Administrative Controls, PPE

Planning and Considerations

A Traffic Management Plan will be developed and include the arrangements for onsite logistical movements.

This will establish designated areas / routes for plant operators to safely exit their machines and walk to the welfare / compound areas.

Where plant will be operated near footpaths, footpaths should be diverted where possible or segregation using suitable barriers (minimum red and whites) must be installed.

The location of designated and controlled crossing points must also be planned and considered.

Surround Vision Cameras

The purpose of using surround vision cameras is to assist plant operators with the safe movement of plant.

The following list is not exhaustive, but indicates the range and type of plant that falls into this minimum standard:

- Excavators – tracked or wheeled of 10 tonne and above.
- Telehandlers of 3.5 tonne and above.
- Tracked dozers and graders.
- Ride on compaction rollers with enclosed cabs.
- Wheeled loading shovels.
- Piling rigs (not mini rigs).
- Crawler cranes.

General Surround Vision Camera Requirements

A surround vision camera that interlinks pictures from multiple cameras that can display a pedestrian from a maximum distance of 5m to a minimum of zero in all directions.

The surround view must cover at least a 270° field of view. The remaining 90° quadrant being always within the operator's direct line of sight (operational direction), without any machine boom obscuring the operator's vision.

The surround vision monitor within the cab, must present an image of a bird's eye (surround) view interlinking the input from all the cameras fitted.

Specific Surround Vision Camera Requirements for Piling Rigs & Crawler Cranes

A surround vision camera system including pedestrian detection that covers the operator's blind spots is acceptable. The operator will have full view of the area not covered by the system.

The pedestrian detection system will analysis camera feeds and will inform the operator of an intrusion of an identifiable pedestrian from a range of at least 7m.

In addition to an audible & visual warning, the system will record the intrusion event with CCTV footage for review if necessary.

Red Zone

Red Zone: This is the operating area and / or reach of plant that presents significant risk to people.

SRM red zone requirements must be fully complied with, and form part of safe systems of work relating to plant operations.

Working in the red zone must be avoided and must only be considered when all reasonably practicable options have been exhausted.

Working in the red zone in the circumstances below is subject to robust safe systems of work being in place.

Attachment and removal of lifting accessories:

- This can only be undertaken once the machine is completely immobilised, and the isolation lever has been applied.
- Before the machine can start to move, the operative must exit the Red Zone and stand in a safe location.
- The operative must not hold onto the suspended load. A 2m tag line will be attached to stabilise the load in transit.

Specified and approved activities:

- There may potentially be specific circumstances that require operatives to enter and work within the Red Zone e.g., kerb laying etc.

Traffic / Plant Marshals

The use of traffic / plant marshals should be considered as a last resort control measure.

Traffic / plant marshals should only be used where:

- It is not practicable to establish plant / vehicle-only areas

- Where there is a people / plant interface risk that cannot be eliminated using engineering controls and / or segregation

If used, means of communication between the traffic / plant marshal and the plant / vehicle operator must be included in the activity RAMS.

Competence

Traffic / Plant marshals must be able to provide evidence of appropriate, accredited theoretical and practical vehicle marshal training, such as CLOCS Site Access Traffic Marshal (SATM) training scheme or equivalent.

4.8 Loading and Offloading

Planning

Deliveries must be planned by competent persons to ensure that there is a safe way to load and offload materials. See Section 48 – General Lifting for further details.

Safe systems of work are required for loading and offloading operations. Key considerations at planning stage include:

- Vehicle selection
- Method of securing loads to prevent uncontrolled movement during transit
- Method of offloading materials to ensure they are offloaded in a controlled manner
- Persons required (including competence / training)
- Equipment required
- Restricted access /Exclusion zone requirements
- Adequacy of ground conditions

Access and Egress

If persons are required to access the back of a vehicle the following must be in place:

- Suitable access and egress – such as portable stair access
- Edge protection and / or fall prevention system

Unsafe Loads

If loads cannot be offloaded safely, they must not be offloaded.

- Loads must be made safe, and vehicles must be turned away
- The relevant trade / sub-contractors must investigate why an unsafe load arrived at site and findings must be communicated to SRM management

4.9 Material Management

Planning and Coordination

Material storage areas must be clearly defined and agreed with SRM management.

Where applicable, project specific material storage area requirements will be communicated by SRM management and may include the need to demarcate / segregate areas and install contact detail signage.

Safe Storage

Vertical storage is a last resort and must only be considered when horizontal storage is not possible.
If materials are to be stored vertically, measures must be taken to secure the material to prevent it from falling.

Materials should be stored in a way to prevent movement and / or damage which could result in them becoming a health and safety hazard.

- Glazing panels, sheets, and materials must be individually strapped / restrained on stillages or in crates.
- Loose tubular shaped materials must be stored on purpose-built racking.
- Stop blocks or other controls are required to prevent materials that could roll if they are not supported, such as cable drums.
- Re-bar and shutter panels should be stored on timber bites with clear access between bundles.
- Controls for adverse weather conditions, such as high winds and rain, must be in place when required (i.e. the weighing down of materials stored in exposed areas).

Onsite movement

Manual handling should be avoided where possible. See Section 23 – Manual Handling for further details.

After materials have been offloaded, safe systems of work may be required to detail how materials will be transported.

Material access routes must be free from obstruction and suitable for persons and equipment using them.

Outside of site boundaries

Material offloading and movement outside of site boundaries must only be considered as a last resort.

Specific risk assessments must be in place to justify why materials cannot be offloaded and transported within site boundaries.

The risk assessment must also detail how public protection will be achieved, such as:

- Pedestrian segregation (marshalling and or physical barriers)
- A person at the front and person at the back of the material(s) whilst in transit

4.10 Exclusion Zones and Restricted Access Zones

Definitions

Restricted access zones: Are to restrict unauthorised persons from entering an area deemed high risk. Only authorised persons may enter these zones.

Exclusion zones: Are to prevent access to all persons from entering a defined area, where there is an immediate risk of danger.

General arrangements

Primary control measures that prevent items from falling must always be considered as a first option. Where the risk of items falling still exists, secondary control measures, such as exclusion and restricted access zones must also be implemented

Exclusion / Restricted Access Zones must be installed when determined via risk assessment when risk still exists after primary controls have been implemented.

These zones must be established and maintained by the organisation creating the risks within the areas.

Planning

Pre-activity planning must determine where Exclusion / Restricted Access Zones are required and duration.

Marked up plans and / or drawings should be used where possible to highlight these areas.

The Exclusion / Restricted Access Zones must be of a suitable and sufficient size to carry out the work activity within it safely and to protect persons outside from the hazards that exist in the area eg:

- Falling materials (consider bounce out of falling materials)
- Noise
- Dust / Fumes
- Plant movement

Communication

Details must be communicated to all relevant persons who are working within, adjacent to, or who are affected by the Exclusion / Restricted Access Zone.

Warning signage must be clearly displayed on all Exclusion / Restricted Access Zones.

Contact details of responsible persons must be displayed at access points to Exclusion / Restricted Access Zones.

Demarcation

Exclusion / Restricted Access Zones must be demarcated using secured, interlocked physical barriers. The type of barriers selected must be appropriate to the risk and must consider the:

- Hazards within the area of restricted access
- Location and environment (including ground and weather conditions)

Red and white tape is not permitted as a means of demarcating exclusion / restricted access zones on SRM projects.

Inspection and Maintenance

Exclusion / Restricted Access Zones must be regularly inspected, prior to and during works, and maintained to prevent unauthorised persons from entering.

4.11 Access Routes

Demarcation

Designated access routes should be clearly identifiable. SRM management will communicate whether certain types or colours of barriers need to be used to demarcate access routes.

Installation of visual aids such as directional signage and nudge communication floor or wall markings should also be considered.

Surface Condition

Surfaces must be free from obstructions and debris, non-slippery, durable to not deteriorate when in use and even, where possible.

Ground is to be civilised and / or compacted during groundworks if used for access.

Trip hazards that cannot be removed or low-level surface changes should be visually highlighted.

4.12 Lighting

Duty Holders

Responsibility for lighting provision is defined contractually and could differ from project to project and will be defined in pre-start meetings.

General access lighting is typically provided by SRM. Activity task lighting is typically provided by the relevant sub-contractor.

Design, Installation, Inspection and Maintenance

Competent persons must be involved in the design, installation, inspection and maintenance of all temporary and permanent lighting systems.

Activity Task lighting

Activity task lighting must be suitable for the works being undertaken or work activities will be suspended until suitable task lighting has been provided.

Emergency Lighting

Emergency access routes such as fire exit routes must be suitably lit for persons to safely exit premises or places of work.

Emergency lighting must be visibly identifiable when it is not in operation.

Testing and Inspection

All temporary electrical lighting systems must be inspected and certified every three months. Permanent systems must be inspected annually.

Emergency lighting must be included as part of testing regimes to ensure it is in good working order.

SRM Preference

SRM encourage use of hybrid and solar lighting towers and LED lights, where possible.

Not Permitted

Halogen lights are not permitted.

Festoon lights with unprotected bulbs are not permitted.

4.13 Housekeeping

Workplaces must be kept tidy at all times, and untidy work areas will not be tolerated on SRM projects.

Works may be suspended if SRM management deem housekeeping to be unsatisfactory.

Trade / Sub-contractors may be counter charged if as a result of poor housekeeping, clear up is required by others.

5 Plant and Equipment

5.1 General Plant and Equipment

Selection

Competent persons must be involved in the planning and selection of construction plant and equipment.

Selection of non-fume generating plant and equipment must be considered in areas where fumes present a risk to health.

Training and Competence

Persons using construction plant and equipment must be competent to use it.

Formal and manufacturer training is required for some plant and equipment. Formal training is mainly required for operated plant and equipment that would have severe consequences if used incorrectly.

Plant or Equipment specific familiarisation training is also required and evidence of this must be made available on request.

Examples of plant and equipment that would require formal training are (non-exhaustive list):

- Abrasive Wheels
- Cartridge Tools
- Fall Prevention Equipment
- Chain saws

Inspection and Maintenance

All plant and equipment must be inspected regularly to ensure that it is in good working order in accordance with LOLER, PUWER and manufacturer's instructions.

If operated plant and equipment is not in good working order, it must be taken out of service immediately.

Visual pre-use inspections by the user are required for all plant and equipment.

Daily recorded inspections must be carried out by competent persons for the following:

- Powered access – hoists, mast-climbers, MEWPS etc.
- Construction plant – excavators, dumper trucks, telehandlers etc.

Weekly recorded inspections, entered into registers, must be carried out by competent persons for the following:

- Powered Tools – chop saws, grinders etc
- Non-Powered Access Equipment – alloy towers, podiums, hop-ups, step ladders etc

5.2 Excavators, Telehandlers, Dumpers and Rollers

General

Seatbelts must be worn at all times during the use of ride-on operated plant.

All plant must have a green light to indicate the application of the seatbelt.

Operated plant should have white noise reversing beacons.

Machines which are to be used on public roads must be road legal, taxed, insured and display registration plates. The operator must hold a valid and in date driving license.

Activity risk assessments must justify the selection of and include safe usage details for 1 tonne excavators and dumpers, due to the increased risk of overturning.

Excavators

Excavators must have fully manual or fully automatic quick hitches. Semi-automatic quick hitches are not permitted on SRM projects.

Edge protection is required on the back of excavators where persons may need to access.

Emergency spill kits are to be attached to all excavators and spill response teams should be identifiable and made known to those in the work area.

See Section 4.7 People and Plant Interface for further details.

Telehandlers

All telehandlers must have longitudinal load movement control.

See Section 4.7 People and Plant Interface for further details.

Dumpers and Rollers

Roll bars on dumpers and rollers must be kept in the upright position at all times during use.

If the roll bar is required to be lowered due to overhead obstructions, the activity risk assessment must capture and demonstrate robust control measures to prevent overturning.

See Section 4.7 People and Plant Interface for further details.

5.3 Toolboxes and Toolchests

Toolchests and toolboxes must be fitted with damper arms to prevent sudden uncontrolled closure.

The name of the trade / sub-contractors using the toolchest or toolbox must be displayed on the container when they are on site.

5.4 Workbenches and Cutting Stations

Unless authorised in writing by SRM Management, work benches and cutting stations on SRM projects must be proprietary in nature.

Cutting operations must take place in designated areas designed for cutting.

Equipment that is designed to be mounted on or operated from a workbench or cutting station, such as a chop saw, is not to be used on the floor.

For the cutting of heavy items that would create a manual handling risk to be bench mounted, alternative cutting equipment and methodology must be employed.

Management and control of dust exposure must be implemented. See Section 21 - Dust / Fumes for further details.

5.5 Knives

General

Knives should only be used as a last resort when safer equipment is not suitable for the activity being carried out.

Automatic-retractable blades

Knives used on SRM projects must have automatic retractable blades.

For activities where it is believed that the use automatic-retractable blade knives could create additional risk, risk assessments must be in place to justify why they shouldn't be used and if risk assessments are accepted by SRM Management exemptions can be granted.

5.6 Nail Guns and Shot Fired Fixings

General

Persons using nail guns and shot fired fixings must be trained and competent to use them. Equipment specific manufacturers training will be required.

Nail guns must be fitted with safety catches to prevent them being fired unintentionally.

Nail guns and shot fired fixings must be stored in lockable containers with controlled access.

All used and misfired cartridges must be collected and correctly disposed of.

5.7 Rubbish Chutes

Planning and Selection

The design of any proposed chute must be approved by an SRM Temporary Works Coordinator.

The design must take account of the type of material that will be dropped down the chute.

Consideration will be given during selection and design of noise and dust generation.

Exclusion Zone

A robust exclusion zone must be established at the base of any rubbish chute and this must be maintained at all times when it is in use. See Section 37 – Exclusion and Restricted Access Zones for further details.

Inspection Regime

A recorded inspection and maintenance regime must be in place to ensure the rubbish chute is in good working condition. Details of inspection arrangements must be written in the activity risk assessment.

5.8 Lorry Loader Swing-Up Type Stabilisers

General

The configuration of some lorry loaders enables the retraction of the stabilisers whilst in the horizontal position. When operating the fixed control station, there is a risk of the operator being crushed.

These types of swing-up stabilisers are not permitted on Sir Robert McAlpine projects or other SRM workplaces.

Permitted Swing-Up Type Stabilisers

To prevent crushing injuries when operating the fixed control station, one of the following swing-up requirements must apply:

- Fixed control stations (including emergency control stations) are located outside of the swing-up arc of the stabiliser leg (both sides of the vehicle).

- Fixed control stations (including emergency control stations) are located within the swing-up arc of the stabiliser leg, but a manufacturer or authorised approved technical / engineering solution is fitted that prevents the stabiliser beam from being retracted unless the stabiliser leg is in the vertical / upright position.

- Stabilisers have a manually operated swing-up function (regardless of whether fixed control stations are located within the swing-up arc). Therefore, the stabiliser beam cannot be retracted with the leg in the horizontal position.

Acceptance of a Lorry Loader to Site

Only permitted swing-up lorry loader stabilisers are authorised on Sir Robert McAlpine projects.

To help check compliance, the Association of Lorry Loader Manufacturers and Importers (ALLMI) have developed a Swing-Up Stabiliser compliance register. This will confirm the lorry loader is compliant. The register will work as follows:

- An online portal, where members of ALLMI will upload details of their lorry loaders with swing-up stabilisers that comply with the requirements.
- Members will attach and display a QR code sticker identifying compliance on the lorry loader.
- Upon arrival to a project, the QR code can be scanned. This will direct the user to the ALLMI Swing-Up Stabiliser compliance register – here.
- Enter the lorry loader details to confirm stabiliser compliance.
- If a lorry loader arrives without a QR code or compliance cannot be confirmed on the compliance register, **the lorry loader must be turned away**.

Further Support

ALLMI safety alert, guidance and awareness video for Swing-Up type stabilisers – here.

ALLMI Swing-Up Stabiliser Compliance Register – here.

For further help and support, contact the SRM Head of Lifting and / or the SRM Transport Manager.

6 Lifting

6.1 General Lifting

Planning

All lifting operations must be planned in accordance with current legislative, British Standards and Industry Publications.

Those involved in the planning and managing of lifting operations must be trained, deemed competent and appointed in writing. All trade / sub-contractors lifting appointed persons and lifting supervisors must follow instruction and support SRM in the safe management of lifting operations.

A Lift Plan and Schedule of Lifts (as applicable) must be reviewed and accepted by the SRM Lifting Appointed Person / Lifting Operations Manager before lifting operations are permitted to commence.

Pre-Slung Loads

The pre-slinging of loads is to be encouraged, but it is only permitted where general use slings are used and only when they accompanied by a report of thorough examination.

Controls must be in place to ensure that the slings are not trapped by the load and trial lifts must be undertaken to ensure that slings have not been dislodged in transit.

Operator Competence

SRM accept industry approved training in line with the BUILD UK competency framework.

Where operatives are required to use plant or equipment that does not have a relevant CPCS or CSCS qualification, they must be trained in line with manufactures' instructions and accredited training and evidence must be available on request.

All operatives must have received specific training for the lifting equipment they are using. Records of this type of training must be made available upon request.

Operators of all types of lifting equipment shall present a booklet or device in which the SRM Lifting Appointed Person / Lifting Operations Manager can endorse their working hours with regard to recording plant use towards competence records.

Supervision and Monitoring

SRM require that any crane related lifting operations being undertaken by a trade / sub-contractors are managed and supervised on site by a competent crane / lifting supervisor.

Unless otherwise agreed in writing by SRM, where SRM have a supervising slinger, the subcontractor is responsible for ensuring that they provide their own competent slinger and supervision.

Inspection and Maintenance

Lifting equipment and accessories must be visually inspected before use and formally recorded on a weekly basis and entered into a lifting inspection register.

All lifting equipment and lifting accessories must have visual indication such as lifting tags on them to show when the next thorough examination is due. This could be identified using a coloured tag system.

Defective equipment must be taken out of service and destroyed.

Lifting of Persons

The lifting of persons in crane lifted access baskets should be avoided where possible and considered only as a last resort.

A thorough risk assessment and lift plan must be in place for this type of work, which must also justify why the activity is being carried out in this manner and include a rescue plan.

Non-crane related lifting

Non-crane related lifting such as lifting with excavators and telehandlers with suspended loads should be avoided where possible. Where this form of lifting cannot be avoided, a thorough and detailed Lift Plan, Schedule of Lifts and risk assessment must be developed accepted before commencement.

Lorry loaders, along with telehandlers and hoists etc can all be used with a Schedule of Lifts that suits the lifting operation complexity and project's environmental / spatial restrictions.

Not permitted

- The use of single use straps / slings.
- Bulk bags can only be lifted directly from a delivery vehicle to ground level. Bulk bags must be placed into a designed lifting container when lifted for onward high-level transportation.
- Chandelier or cradle lifting.
- The use of blue nylon rope or sisal rope as taglines.
- Suspended loads being lifted by telehandlers or excavators are a last resort and must only be considered if no practical alternatives exist and if enhanced controls are in place to manage the risk.
- Tandem lifting using two tower cranes is not permitted. Tandem lifting will use equipment of similar types e.g., two mobile cranes rather that a mobile crane with an excavator / telehandler. Tandem lifts are to be treated as a complex lift.

6.2 Tower Cranes

Access and Security

Anti-climb security panels with lockable access doors must be installed at the base of tower cranes, at the earliest opportunity to prevent unauthorised access.

Tower cranes must be fitted with anti-climb systems on crane masts at suitable intervals.
Lockable hatches must be installed within the mast and slew rings.

Operator Visibility

A camera must be installed and mounted on the jib with audio and visual capability.

Anti-Collision / Zone Limiting Systems

Where the tower crane or part of the load being lifted can make contact with another tower crane or other structures / obstacles, each tower crane must be fitted with compatible anti-collision devices.

Where the crane or part of the load being lifted could enter a prohibited space (e.g. a rail asset), the crane must be fitted with zone limiting devices. The limiting devices must limit both slewing and derricking as required.

The Lift Plan should include a drawing showing the extent and positioning of the zoning and anti-collision zones.

The zoning / anti-collision devices must be checked daily before lifting operations commence. This will be periodically checked by the SRM Lifting Appointed Person / Lifting Operations Manager.

The zoning / anti-collision devices can only be deactivated under a robust risk assessment, a defined period of time and by the acceptance of the SRM Lifting Appointed Person / Lifting Operations Manager. This can be managed by a permit to work system.

A visual means of identifying when the zoning / anti-collision device has been switched off must be installed. This must be visually identifiable at ground level.

Anti-Collision (Crash) Radios

On multi-crane sites (2 or more), the project must have anti-collision (crash) radios.

Anti-collision (crash) radios must be used, comprising of a sperate crash radio in each tower crane cab and operating on a unique frequency to enable open and uninterrupted communication between all tower crane operators and anyone with a role in preventing a collision, this includes the SRM Lifting Appointed Person / Lifting Operations Manager.

Anti-collision (crash) radios must be checked daily before lifting operations commence. This will also be periodically checked by the SRM Lifting Appointed Person / Lifting Operations Manager.

Unnecessary communication on the crash radio should be avoided.

Emergency arrangements

- A full tower crane rescue team, and tower crane rescue equipment must be on site and accessible at all times when tower cranes are operational.
- Tower crane rescue plans will be documented and communicated to all relevant persons.
- A tower crane rescue briefing must be undertaken every 6 months.
- As a minimum, a physical tower crane rescue drill must be undertaken annually.

6.3 MEWPS

Competence

Mobile Elevated Work Platform (MEWP) operators must have a valid and in date IPAF qualification for the type of MEWP they are operating.

Steel erectors, netters and all persons that work in scissor lifts at 10 metres and / or boom at 15 metres and above must have IPAF PAL+ plus training.

IPAF PAL+ training is required where machines are used in high-risk environments, such as where there is a crushing risk due to overhead obstructions or work on challenging terrain.

It is recommended that persons who are supervising or managing work activities have completed a MEWPS for Managers training course.

Secondary Guarding

Secondary guarding devices are required on all 1b and 3b boom type machines.

Restricted Access Zones

Restricted access zones must be established around all MEWP activities where persons can or could access the vicinity in which the operations are taking place.

Ground Conditions

Ground conditions must be suitable for the MEWP being used as identified in the manufacturer's instructions.

Where required, a suitable temporary working platform will be designed and installed to prevent plant overturning.

Emergency

Emergency rescue plans are required for all works being undertaken from a MEWP.

'Spotters' / ground attendants with machine specific emergency lowering training must be in the vicinity of all MEWP activities.

See Section 30 – Emergency Arrangements for further details.

6.4 Mast Climber Working Platforms

Planning and Selection

The use of Mast Climber Working Platforms (MCWPs) must be justified via risk assessment against other forms of access options that offer collective fall prevention such as scaffolding.

The risk assessment should consider the activities to be carried out, the risk of falling objects and the location / environment in which the works are to be taking place in.

MCWPs should not be used where effective secondary fall prevention controls such as suitably sized exclusion or restricted access zones cannot be established below.

Before the appointment of the MCWP provider, the SRM Head of Lifting Solutions must be contacted for review and approval.

Competence

Persons installing, modifying or dismantling MCWPs must have received formal training for installation of that type of MCWP, as well as BUILD UK compliant industry recognised training.

MCWP operators must have BUIILD UK compliant industry recognised training and machine specific familiarisation training.

Induction

Persons working on or accessing MCWPs must attend site specific inductions for the machines. These inductions must detail key risks, controls, and any site-specific information.

Fall Prevention Controls

MCWP design must eliminate or reduce gaps from the machine to the building wherever possible.

All tools and materials that can be tethered must be tethered at all times in MCWPs. Hard hat tethers or chin straps are also required.

LPS 1207 / 1215 rated netting and guarding must be installed in line with manufacturer's instructions to encapsulate MSCWP handrail / edge protection systems.

Netting or other forms of encapsulation are required under the basket to prevent debris falling from the basket.

RAMS for MCWP use must account for the inspection and maintenance arrangements for all fall prevention controls. These will typically include access arrangements and persons responsible.

Access Restrictions

Restricted Access zone areas must be established to prevent unauthorised access to MCWPs. See Section 37 – Exclusion and Restricted Access Zones for further details.

Unless otherwise agreed in writing with SRM, the trade / sub-contractors is responsible for maintaining effective restricted access zones.

Inspection and Monitoring

Due to the high-risk nature of works from MCWPs, enhanced levels and supervision and management are required to monitor that works are being done in accordance with agreed RAMS.

As well as statutory inspections to satisfy LOLER requirements, inspections must be carried out as a minimum pre-use, during use and at the end of the working day, to ensure that fall prevention controls remain in good condition.

Pre-use and end of work inspections must be formally recorded daily on each MCWP in use.

A weekly recorded inspection must be undertaken, and registers must be maintained.

Independent Motor / Brake Testing

The preferred method to prevent MCWP platforms from unplanned dropping is to have a safety device fitted. This will stop the machine in the event of a sudden descent. Where a c-brake/parachute brake is fitted, electrical checks on the correct functioning of all motors is required. This will not utilise a thermal cut-out device.

All MCWP suppliers will demonstrate that they have checked all brakes by providing records of checks for pad thickness and air-gap settings for motor brakes and correct pad thickness and clearance for any c-brakes.

All mast climbing work platforms shall have tests undertaken to ensure that each motor and brake is operational independently and they will each raise or lower the platform at the rated capacity.

This is to be checked at each thorough examination and at the 6-weekly maintenance visits.

Emergency Arrangements

Emergency rescue plans are required for activities involving MCWPs.

See Section 30 – Emergency Arrangements for further details.

6.5 Hoists

Planning and Selection

Competent persons involved in planning and selection, must decide whether material only, person only or material and person hoists are to be installed and used.

Where hoists are being installed to transport materials, selection should consider:

- the types of material to be transported
- how materials will be safely loaded and unloaded from the hoist

Where possible, hoist landings will be flush with platform floors however if this is not possible temporary solutions, such as ramps are subject to temporary works design and inspection.

Competence

Persons installing, modifying or dismantling hoists must have received formal training for installation of that type of hoist, as well as BUILD UK compliant industry recognised training.

Hoist operators must have CPCS training and machine specific familiarisation training.

Fall Prevention Controls

Hoist platforms should be designed to eliminate or reduce gaps from the machine to the building wherever possible.

The aim is for there to be no gaps, where possible, between the platform and the hoist when it reaches that platform level when it is being loaded and offloaded.

Inspection and Monitoring

Daily pre-use inspections must be formally recorded prior to use.

A weekly recorded inspection must be undertaken, and registers must be maintained.

Emergency Arrangements

Emergency rescue plans are required for all works involving hoists. For person carrying hoists, it is recommended that emergency plans are pictorial and are displayed in the hoist at all times.

Hoist operators must be familiar with machine specific emergency arrangements and are expected to take control of an emergency situation and lead others to a place of safety.

Hoist operators will be issued with radios to ensure the successful coordination of emergency situations and evacuation.

6.6 Gin Wheels and Pulleys

Planning and Selection

Gin wheels and pulleys are to be used as a last resort for transporting materials. These are only to be used when there are no other means available, such as material hoists to transport materials, to avoid a manual handling risk.

Only systems with automatic brakes are permitted on SRM projects.

General Requirements

- A specific safe system of work is required which must include justification of why the system is being used.

- Familiarisation training required for use of the specific type of gin wheel / pulley, evidence must be provided on request.
- All equipment, rope, wheel, attachments are governed under LOLER and LOLER certification is required.
- A secured restricted access zone (in line with the Exclusion / Restricted Access Zone Minimum Standard) must be established below to prevent unauthorised access to lifting and landing areas.
- The temporary supporting structure must be subject to temporary works inspection and checks.

Inspection and Maintenance

Pre-use inspections and weekly recorded inspections must be carried out by a competent person to ensure that the equipment is in good working order.

6.7 Cradles – Temporary Suspended Access Equipment (TSAE)

Planning and Selection

The use of Temporary Suspended Access Equipment (TSAE) must be justified via risk assessment against other forms of access options that offer collective fall prevention such as scaffolding.

The risk assessment should consider the activities to be carried out, the risk of falling objects and the location / environment in which the works are to be taking place in.

The Supplier & User should provide a suitable Method Statement & Risk Assessment covering the design, installation, use and dismantling of the TSAE.

TSAE's should not be used where effective secondary fall prevention controls such as suitably sized exclusion or restricted access zones cannot be established below.

The RAMS must consider how the power cable will be managed and protected during decent and ascent.

Competence

Persons installing, modifying, or dismantling TSAE must be trained, have theoretical and practical knowledgeable, be competent and have received formal training for installation of that type of TSAE.

TSAE operators must be competent and received machine specific familiarisation training.

Minimum of 2 trained and competent operators will be in attendance within the Cradle during operation of the TSAE.

Induction

Persons working on or accessing TSAE must attend site specific inductions for the machines. These inductions must detail key risks, controls, and any site-specific information.

The operating manual for the TSAE must be provided and made available.

Fall Prevention Controls

TSAE design must eliminate or reduce gaps from the machine to the building wherever possible.

All tools and materials that can be tethered must be tethered at all times in TSAE's. Hard hat tethers or chin straps are also required.

LPS 1207 / 1215 rated netting and guarding must be installed in line with manufacturer's instructions to encapsulate TSAE handrail / edge protection systems.
Netting or other forms of encapsulation are required under the basket to prevent debris falling from the basket.

RAMS for TSAE use must account for the inspection and maintenance arrangements for all fall prevention controls. These will typically include access arrangements and persons responsible.

Where there is a risk of persons falling, operators will be required to wear full body harness with suitable lanyard / fall restraint systems attached to the identified anchor points within the cradle.

Safe Working Load of Cradle and maximum number of permitted persons (excluding materials) must be clearly displayed.

Access Restrictions

Restricted Access zone areas must be established to prevent unauthorised access to TSAE's.

Unless otherwise agreed in writing with SRM, the trade / sub-contractors is responsible for maintaining effective restricted access zones.

Before commencing work, weather conditions should be checked using an anemometer and / or other wind indicating device. Safe operating wind speed will be in the TSAE's Operating Manual.

When not in use or unattended the TSAE is to be isolated and suitably secured to prevent unauthorised use or movement from wind and weather conditions.

Inspection and Monitoring

Due to the high-risk nature of works from TSAE's, enhanced levels and supervision and management are required to monitor that works are being done in accordance with agreed RAMS.

As well as statutory inspections to satisfy LOLER requirements, inspections must be carried out as a minimum, these include, pre-use, during use and at the end of the working day, these are to ensure the power supply cables, and fall prevention controls remain in good condition.

Safety function tests, pre-use and end of work inspections must be formally recorded daily on each TSAE in use.

A weekly recorded inspection must be undertaken, and registers must be maintained.

Emergency Arrangements

Emergency rescue plans are required for activities involving TSAE's.

See Section 30 – Emergency Arrangements for further details.

7 Fall Prevention

7.1 General Work at Height

Competence

Competent persons must be involved in the planning of work all work at height activity. Persons using, installing, inspecting and maintaining work at height equipment must be competent to do so.

Evidence of competence must be made available on request.

Industry specific competence standards are listed in the relevant sections below.

Planning and Selection

Work at height activities must be planned in accordance with current Work at Height Regulations. The hierarchy below must be followed for all work activity.

1. Avoid working at height completely
2. Prevent fall by using a safe place to carry out work
3. Prevent falls using equipment that has collective fall prevention controls
4. Use fall restraint PPE
5. Use fall arrest equipment PPE
6. Minimise the impact of a fall

Fall Prevention Controls

Primary control measures, such as tethers, that prevent items from falling in the first instance must always be considered as a first option.

Secondary control measures, such as exclusion zones and restricted access zones are required where there is still a risk of something falling after primary controls have been introduced.

Inspection and Maintenance

The inspection and maintenance section below must be complied with unless manufacturers state that an increased level of inspection and maintenance is required.

Access Equipment:

- Non-Powered access equipment is subject to visual pre-use checks and must be formally inspected weekly and entered into an inspection register
- Powered access equipment is subject to daily pre-use recorded inspections and must be entered into inspection register on weekly basis.
- Regular maintenance regimes must be defined by the trade / sub-contractors using the powered access equipment. Maintenance intervals should not exceed 3 months.

Work at Height, Fall Prevention Equipment are:

- Subject to visual pre-use checks and must be formally inspected weekly and entered into an inspection register.

7.2 Mobile Towers and Podiums

Mobile Towers

Mobile towers must be erected, modified and dismantled by a PASMA trained and competent person.

Use of advanced guard rail systems should be considered during selection and identified in the risk assessment.

Mobile towers must be operated with the brakes fully deployed and at no point should towers be moved whilst persons are on them. Stabilisers must be deployed in line manufacturer's instructions.

The use of single width towers should be considered as a last resort.

Podiums

Podiums used on SRM projects must be two wheeled; four wheeled podiums are not permitted.

Podiums must be erected and used in accordance with the manufacturer's instructions.

The podium must have means of stability against overturning in line with PAS250 / BS8620. This can include the use of stabilisers, or other manufacturer approved solutions.

Podium gates must be closed at all times during use. Use of podiums with self-closing gates should be considered during selection and used where possible.

7.3 Ladders, Stepladders and Hop Ups

Planning and Selection

Ladders, stepladders and hop ups are last resort access equipment options and they can only be used for short duration, low risk work activities.

Usage must be justified via risk assessment, which must consider the working environment where the access equipment will be used.

Security and Control

If usage is permitted, it is recommended that marked up drawings of where ladders and stepladders can be used is produced and communicated to all relevant persons.

Ladders, stepladders and hop ups should be secured when not in use to prevent unauthorised access.

Control of ladder and hop up usage using permit systems is at the discretion of the SRM project team.

General Requirements

Ladders and Stepladders must conform to the EN131 Professional standard.

600mm x 600mm is the recommended minimum size of a hop up, smaller hop ups should only be considered due to access restrictions.

7.4 Perimeter / Leading Edge Protection

Planning and Selection

The table below details the minimum perimeter edge protection requirements once slabs have been formed.

Each project must record their edge protection strategy formally, which may, as a product of risk assessment, include additional controls above the minimum requirements in the table below.

Systems that eliminate or significantly reduce gaps in which items can fall through should be selected. Any gaps that exist in which items can fall through must be sufficiently closed in line with temporary works requirements.

Risk Rating:	Edge Protection Requirements:	Material free / Mandatory tethering zones:
High Risk - Urban Environments with close proximity to members of the public / or areas in which works are being undertaken above members of the public such as live roads.	1 ½ panel proprietary edge protection. If proprietary systems are not compatible with construction design, designed solutions must be developed and a height of 1.8metre and above must be achieved. Additional considerations: ▪ Full height edge protection should be considered where there is increased risk or consequence of items falling, or where external assets are to be protected ▪ Safety net fans, scaffold fans and protected walkways should be considered to offer additional protection to protect persons or assets in high-risk environments	Visual Material Free / Mandatory tethering zone is required (set a minimum of 2 metres back).
Medium and Low Risk Environments	A minimum of 950mm proprietary edge protection conforming to EN13374 as a minimum. Additional height may be installed following risk assessment. If proprietary systems are not compatible with construction design, designed solutions must be developed and minimum heights stated above must be achieved.	Visual Material Free / Mandatory tethering zone is required (set a minimum of 2 metres back).
Last resort	Handrail Systems (triple height where possible). These should only be used for short duration works or where proprietary systems cannot be used, or where the	Visual Material Free / Mandatory tethering zone is required (set a minimum of 2 metres back).

	removal of existing edge protection would create a greater risk (in an existing building or premises). Brick guards or appropriate netting must be in place.	

The table below details the minimum requirements for specific scenarios:

Scenario:	Edge Protection Requirements:	Material free / Mandatory tethering zones:
Working deck / Roof	1 ½ panel proprietary edge protection as a minimum. If proprietary systems are not compatible with construction design, designed solutions must be developed and 1.8metre height must be achieved.	Visual Material Free / Mandatory tethering zone is required (set a minimum of 2 metres back).
Steel Frame Construction	A minimum of 950mm proprietary edge protection conforming to EN13374 as a minimum. Edge protection should be installed at ground level wherever possible. If proprietary systems are not compatible with construction design, designed solutions must be developed and minimum heights stated above must be achieved.	Visual Material Free / Mandatory tethering zone is required (set a minimum of 2 metres back).
Material loading bays	A minimum of 950mm proprietary edge protection conforming to EN13374 as a minimum. If proprietary systems are not compatible with construction design, designed solutions must be developed and minimum heights stated above must be achieved. Appropriate guarding or netting to reduce the likelihood of materials falling must be installed.	Any tools and materials that could penetrate or fall through the edge protection must be set a minimum of 2 metres back.
Non-Perimeter Edge Protection	Edge protection should be considered on changes in surface levels of 300mm and above (if below highlight changes in levels). Open handrail systems are not permitted if materials are being stored or carried within 2metres from the edge (netting or guarding must be installed).	Where there is a drop of 2metres or more, a visual Material Free / Mandatory tethering zone is required (set a minimum of 2 metres back).
Stair edge protection	If tools and materials are carried up and down proprietary stair systems, they must be encapsulated with netting or guarding as a minimum.	N/A

	Prior to installing netting or guarding, temporary works checks such as wind load calculations must be carried out. Stair edge protection should be installed before stairs are installed where possible.	

Competence

Competent persons must be involved in the selection and design of perimeter / leading edge protection.

Persons involved in the installation, modification and removal of perimeter / leading edge protection systems must have received work at height / leading edge training and have manufacturers training in the specific type of system.

Persons involved in inspecting perimeter edge protection / leading edge systems must have manufacturer's training in the specific type of system.

All persons involved in the installation of tube and fitting scaffold must be CISRS qualified scaffolders as detailed in the Scaffold Minimum Standard.

Handover

If edge protection / leading edge systems are to be handed over from one contractor to another, the handover must be defined formally in writing.

The handover must clearly detail arrangements for future inspection, modifications, maintenance and removal of the system.

Inspection and Maintenance

All systems are subject to daily visual checks and must be formally inspected weekly and entered into an inspection register.

Scaffold tag systems or equivalent are required on edge protection systems to visually indicate that the equipment has been inspected as required by a competent person.

7.5 Risers

Planning and Selection

Riser protection design and selection must be functional for those installing and maintaining it and for follow on trades and future use.

It is likely that riser selection / coordination meetings will take place between relevant stakeholders prior to selection to ensure that the design is suitable.

The use of pre-formed risers should be considered to reduce the risk of operatives working at height.

Riser protection should be installed during frame construction wherever practical.

The use of proprietary riser systems is preferred.

Control

SRM will generally control riser areas unless this duty has been delegated in writing to another organisation.

The riser duty holder is responsible for ensuring that risers are kept in good condition and that works in riser areas are controlled and coordinated to keep people safe. These arrangements should be recorded in writing to detail how riser areas are to be managed.

Access to riser areas may be controlled via a permit system, project specific arrangements will be communicated by SRM management as appropriate.

Measures must be in place to prevent unauthorised persons from entering or working in riser areas. Locked off doors or physical barriers and signage are required to prevent access to high-risk areas, specific security controls are to be determined via risk assessment by the duty holder.

Multi-level working must be avoided wherever possible, enhanced fall prevention controls are required to allow this to happen and this must be approved by the riser duty holder.

7.6 Lift Shafts

General requirements

- Lift shaft areas are restricted to authorised persons only. Measures must be in place to prevent unauthorised access.
- Rescue plans must be in place for all works inside lift shafts.

Competence

Persons installing and maintaining lift systems must have the correct skills card for their role and formal machine specific familiarisation training for the system they are installing.

Lift shaft protection

Once formed, lift shaft openings must be fully protected in line with temporary works requirements.

Proprietary lift shaft protection should be installed at the earliest possible opportunity.

Solid lift shaft protection may be required to offer fire compartmentalisation as an output of the project Fire and Emergency strategy.

Where solid propriety lift shaft protection is used, it is recommended that the protection has vision panels.

Those installing proprietary lift shaft protection must have received manufacturer training on installation. Training must be made available on request.

Inspection

Lift shaft protection is subject to daily visual checks and must be formally inspected weekly and entered into an inspection register.

7.7 Scaffold

Competence

Scaffold companies must be NASC - Contractor accredited or hold a Scaffold Association Level 3 - audited membership.

Scaffold operatives must hold the correct CISRS training for their role; this includes scaffold labourers.

Advanced scaffolders must be in attendance for all complex / design scaffold works.

The number of CISRS qualified scaffold supervisors and managers required for works will be agreed at pre-start meeting stage according to package risk.

General

All scaffold works must be carried out in line with current NASC guidance and work at height regulations.

Unless covered by a basic configuration specified by current industry guidance, a design is required from a competent person. Designed scaffold is subject to SRM Temporary Works procedures.

Gaps in scaffold platforms must be covered if there is a chance of items falling through the gaps and causing harm to persons below.

Scaffold tie tags should be visually identifiable and installed in accordance with the design and manufacturer's instruction.

Access

Emergency access and egress arrangements should be considered when selecting appropriate access systems.

Stair access systems must be selected as a first option rather than ladders wherever possible.

If ladders are used, ladder access hatches are to be used as a last resort and alternative fall prevention controls should be used instead.

Restricted Access Zones must be established and maintained by the scaffold trade / sub-contractors during scaffold erection, modification and dismantling.

See Section 37 – Exclusion and Restricted Access Zones for further details.

Inspection and Handover

Scaffolding is subject to daily visual checks and must be formally inspected weekly, or more frequently if required, and entered into a scaffold register.

It is recommended that the inspection of complex scaffold structures is undertaken by a person or organisation independent from the team that erected it.

Scaffold registers must be kept up to date and made available on request.

Scaffold handover certificates must be filed, and records must be maintained.

7.8 Protected Walkways

Planning and Selection

Protected walkways are to be considered for access routes that, due to risk, require additional protection, such as third-party interface.

Design

Any protected walkways or fans must be designed to take the impact of the heaviest falling object that they are protecting persons from.

Temporary Works

Protected walkways must be considered as temporary works and are subject to temporary works design checks and inspections.

Inspection and maintenance

Both protected walkways and fans must be subject to regular inspections and means to maintain these must be established in a safe system of work.

7.9 Temporary Hole and Void Protection

Planning and Selection

Temporary hole and void protection should be installed during frame construction where possible.

Design

Temporary hole and void protection design must include the Safe Working Load, surface type and the slip, trip and fall risk as a minimum. The design should consider current and future activity in the area in which the protection is installed.

If there is a chance that the hole and void protection may be damaged by the safe working load being exceeded, measures should be installed to prevent access to the protection cover.

Temporary works designs are required for all protection covers over 200mm x 200mm if proprietary systems are not used.

Inspection and Maintenance

Temporary hole and void protection are subject to daily visual checks and must be formally inspected weekly, or more frequently if required, and entered into an inspection register.

If hole and void protection covers are not in good order, duty holders must warn others of the risk and prevent unauthorised access prior to maintenance, removal or reinstatement works.

Warning Markings

Persons must be made aware of the Safe Working Loads of the hole and void protection covers on site.

Unless it is not practical, indelible warning markings are to be installed on all covers highlighting the Safe Working Load.

Handover

Handover arrangements for hole and void protection must be formalised in writing.

Arrangements, such as who is responsible for ongoing inspection, maintenance and removal, must be included in any written handover.

Removal and reinstatement

Removal and reinstatement of hole and void protection must be planned and a RAMS is required for these works.

7.10 Tool and Material Tethering

When tethering is required

Tools and materials must be tethered, where possible, when the item falling could cause harm to persons. Activity risk assessments must consider and assess the risks of falling tools and materials.

Where there is an increased risk of them falling, hard hats should also be tethered or chin straps should be worn.

Falling tool and material risk can exist in external and internal environments, when working from access equipment and when working adjacent to openings such as risers, lift shafts and excavations.

Tools must be tethered when they are being used 2 metres from an opening or the edge of a structure and when they could fall more than a distance of 2 metres.

Tools must also be tethered if there is a chance that they could fall into PPE-free zones or public areas.

Where it is not possible to tether tools or materials and a fall risk still exists, alternative controls must be in place and approved via Risk Assessment.

Tether requirements

Tethers must be:

- CE or UKCA marked
- Provided with a test certificate to confirm the maximum weight of the tool or equipment to be tethered
- Marked with the safe working load (SWL).

Anchor Points

- Anchor points should be considered during the development of activity risk assessments
- Anchor points must be appropriate for the weight of the tool or material that is being tethered
- Tools and materials that weigh more than 5kg should not be attached to a person

Inspection and Maintenance

Users must carry out pre-use visual checks. Defective tethers must be taken out of service immediately.

It is recommended that thorough inspections are carried out periodically and that these are recorded where practical.

7.11 Fall Arrest Safety Netting

Planning and Selection

Control measures that prevent persons from falling must always be considered as a first option.

The use of fall arrest safety netting must be justified via risk assessment.

Competence

Safety net installation must be designed by a competent person in line with FASET and Safety Net Rigging guidance and standards.

Persons installing, maintaining or relying on safety netting must have completed the correct type of FASET training for their activities.

Persons involved in net rigging must have a Safety Net Riggers CSCS card.

Persons inspecting netting must have a FASET net inspectors' qualification.

Inspection and Maintenance

Safety netting must be inspected before use by the competent user.

They must also be inspected at the following intervals:

- Not exceeding 7 days
- When the integrity of the installation may have been jeopardised through loading by materials / persons or any other forms of damage
- Following adverse weather such as high winds, snow and ice

Rescue Plans

Rescue plans must always be in place if safety nets are selected as a human fall prevention control measure.

See Section 30 – Emergency Arrangements for further details.

8 Specified Risks / Activities

8.1 Mechanical

Pressure Systems

Specific requirements in the Pressure Systems Safety Regulations (PSSR Regs) must be referenced at planning and design stage.

Examples of where the PSSR Regs must be complied with are stated in the non-exhaustive list below:

- Compressed Air Systems
- Steam systems
- High Temperature Hot Water Systems
- Refrigerant Systems
- Medical gasses including Oxygen, Nitrogen, Nitrous Oxide, CO2 etc
- Natural; Gas installation operating above 500mbar (Medium Pressure Gas and above)- Refer to IGEM regulations
- High Pressure Misting Systems

The following systems operate under pressure but do not fall under the PSSR (non-exhaustive list):

- Domestic Hot water systems and hot water systems operating below 110 degrees Celsius.
- Low Temperature Hot Water Systems
- Chilled Water Systems (for refrigerant systems see above)
- Low Pressure Natural Gas Systems (below 75mbar)
- Sprinkler Systems

Requirements

- No intrusive works shall be carried out on pipework systems that have temperatures above 43°C. If necessary, the temperature should be reduced to this temperature or below, prior to commencing work.
- Tests carried out using any gas which is carried out at a pressure in excess of 0.5 bar gauge has significant risks and should be subject to specific risk assessments before agreeing to this

method of testing. Exclusion zones and / or restricted access areas must be established for this type of testing.

- All pressure testing covered by this procedure shall be undertaken under the control of a designated competent person.

Natural Gas

Gas works should only be undertaken by a person who has successfully completed an industry recognised training course and is registered with the Gas Safe Register.

Water Management

Duty holders must ensure that formal arrangements exist detailing how drinking / wholesome water supplies are to be managed to ensure that they are free of legionella.

Duty holders must ensure that a legionella risk assessment is produced and communicated to all relevant persons.

8.2 Electrical

High Voltage (HV)

HV electrical works must be carried out by specialist contractors in line with current regulations and requirements.

The sections below relate to low voltage electrical works.

Competence

All electrical contractors carrying out works on SRM projects must be approved NIC EIC members.

Persons carrying out electrical works must be ECS / JIB qualified.

Temporary electrics

110v is the preferable temporary electrical supply

240v electrical supply is a last resort and usage must be justified via risk assessment.

All 415v cables must be clearly identifiable and suitably protected.

Electrical supplies should be installed in a way that does not create cable trip hazards wherever possible.

MDUs and control panels must be secured and locked off at all times when not in use.

Access to MDUs and control panels must be maintained at all times to provide access to those working on them. SRM should be contacted immediately if access to these areas is restricted.

Permanent electrics

Going live.

In advance and in good time of energising permanent electrical building systems / installations, all persons on site must be notified that the system is going live.

Evidence of effective communication in advance of systems going live must be made available on request.

Live control systems

Unauthorised persons must not be able to access live electrical control systems.

- Access doors must be locked
- 'Danger Live Electricity' signage must be installed
- Controls must be locked off
- A permit system must be used to control access to electrical switch rooms.

Permit systems may be required for intrusive works near live services, this will be agreed between SRM management and the electrical contractor.

Inspection and Maintenance

Installation test certificates must be issued for both temporary and permanent electrical installations.

Temporary electrics

- 3 monthly thorough examination and test certification is required
- Regular visual checks to ensure they are in good condition (visual pre-use checks and formal weekly inspection registers are recommended) must be carried out

Office and Welfare areas

- Annual thorough examination and test certification is required
- Regular visual checks to ensure they are in good condition must be carried out

Portable Appliance Testing (PAT Testing)

All portable appliance testing must have visual indication such as inspection tags or labels on them to show when the next inspection is due.

- 3 monthly for 110V site equipment
- Monthly for 230V site equipment
- Annually for offices and office equipment

Out of Hours

Electrical duty holders out of hours emergency contacts must be maintained and communicated to relevant persons on every project.

8.3 Existing Buildings or Premises

Pre-Construction Information

For works involving existing buildings or premises, SRM will request existing pre-construction information to help us to understand inherent risks.

SRM will also carry out their own due diligence, to ensure that the information included in the pre-construction information is suitable and sufficient.

If additional surveys and further investigation are required, this will typically be at the cost of the client as the duty holder under the CDM Regulations.

If there is any doubt that pre-construction information is not to the standard required, SRM will make arrangements to obtain suitable information, which will typically be at the cost of the client as the duty holder under the CDM Regulations.

Risk Assessment

An existing buildings / premises risk assessment detailing existing risks that have been identified and control measures that are in place to manage them must be in place during works involving existing buildings and premises.

This risk assessment will typically be produced by SRM however this duty may be delegated to others in writing.

It is important that competent people (relevant to the known or potential risks) are involved in completing the risk assessment. For example, if an existing building has M&E services in it, someone competent in M&E should be involved in the risk assessment.

Examples of known or potential risks (that are likely to require specialist input) include, asbestos, structural instability, lead, contaminated land, existing services.

Access and Security

General access into existing buildings or premises is not permitted until a thorough risk assessment has been undertaken and deemed access to be safe.

Measures must be in place to prevent unauthorised access to existing buildings and premises. SRM are the duty holder unless this duty is delegated to another organisation in writing, such as a demolition contractor during demolition works.

Prior to entry risks and control measures (where applicable) must be communicated to all persons who enter the existing building or premises.

8.4 Demolition

General

Prior to demolition works taking place, demolition contractors must develop a demolition plan which will take into account both new and existing pre-demolition survey information.

Survey information must include information relating to structural stability, asbestos and M&E services as a minimum.

Permits to demolish will be issued by SRM before demolition works are permitted. Project arrangements will be communicated by SRM management.

Training and Competence

Demolition contractors must be members of the National Federation of Demolition Contractors (NFDC).

Demolition supervisors must hold Gold CCDO Supervisors cards and demolition operatives must also hold relevant demolition competence cards.

Restricted Access

Access to demolition areas must be restricted to ensure that persons are not exposed to unnecessary risk. Demolition contractors are responsible for ensuring that unauthorised persons do not enter demolition areas under their control.

Contact details for area-specific demolition supervisors must be displayed at entry points to demolition areas.

Demolition contractors must provide safe access to SRM management when requested.

8.5 Temporary Works

General requirements

The arrangements for minimising and controlling risks during the temporary works lifecycle are set out in SRM temporary works procedures.

The SRM Designated Individual (DI) will brief and appoint in writing a suitably qualified Principal Contractor Temporary Works Coordinator (PC TWC), who is responsible for all temporary works solutions on the project.

Where subcontractors are used and have their own TWC, the SRM DI should ensure that each organisation has suitable and effective management procedures and that they are being used. This will be achieved by ensuring; audits, checks, reviews, and surveillances are conducted and documented throughout the duration of the use of the Temporary Works . Where the trade/sub-contractor's temporary works processes and procedures are not sufficient, they will be offered to use and implement SRM's temporary works procedures. This review will be undertaken at the preconstruction stage, frequency will be specified by the SRM DI.

McAlpine Design Group can be contacted where support, design and design checks are required.

Competence

Temporary Works are to be designed, design checked, installed, checked / approved for loading / unloading and dismantling by competent people.

Demonstration of competence to discharge duties will be required at every stage.

The Design Risk Matrix in the SRM temporary works procedures, should be referred to, in order to establish the required competence of the temporary works designer to minimise risk and the category of checking required.

Inspections

Construction materials, components and the physical construction of Temporary Works are to be inspected and approved to ensure their compliance with the design. This will be done through the SRM Temporary Works process.

8.6 Excavations

General requirements

All excavations must be carried out and undertaken in accordance with industry guidance (HSE – Excavations)

Planning and Temporary Works Design

Excavations of 1.2m or deeper will require a temporary works design and checks in line with the SRM design risk category.

Temporary works (TW) design and solutions are required where excavations will be undertaken near buildings, walls and scaffolding.

McAlpine Design Group can be contacted where support, design and design checks are required.

Trenchless Methodologies

Where possible, the opportunity to use trenchless techniques and methodologies will be investigated e.g. Directional drilling to remove the requirement for opening excavations.

Temporary Works Solutions

All persons installing, inspecting and maintaining temporary works solutions must be trained and deemed competent in the TW solution.

The TW solution must be installed in line with the design and manufacturer's instructions and inspected by a trained and competent temporary works supervisor before entry is permitted. This inspection must be recorded.

Battered angle of repose or stepped solutions must be created and shaped in line with the temporary works design or in accordance with industry guidelines.

Edge Protection and Fall Prevention

Stop blocks / earth bunds should be placed at the excavation edge to prevent tipping / falling plant during the excavation and / or placement of back fill material.

To prevent people falling into excavations, suitable measures must be in place relative to the risk as below and included in the method statement and risk assessment:

Shallow Excavations (1.2 metres or below):

- Pedestrian barriers placed 1 metre away from the excavation edge
- Barriers must be secured together and weighed down as required to prevent tipping

Deep excavations (deeper than 1.2 metres):

- Trench box / sheet pile sides should extend 1m higher than ground level where possible.

- Install proprietary edge protection onto the box / sheet pile.
- Where there is a risk of material falling into the excavation, edge protection must include toe boards.
- Consideration for the erection of Heras fencing to prevent unauthorised access to the work area.

Use of pedestrian barriers around deep excavations:

- Usage is to be considered as a last resort and must be justified via risk assessment
- If used, pedestrian barriers must be secured and set a minimum of 2 metres away from the excavation edge
- The use of pedestrian barriers can only be used as demarcation for excavations deeper than 1.2 metres as a last resort
- If used, pedestrian barriers must be secured together and weighed down as required to prevent tipping.

Edge protection / demarcation requirements for slopes and verges:

- Slopes no steeper than 1:2 where no hazards or obstructions exist do not require edge protection or edge demarcation
- Slopes no steeper than 1:2 where hazards or obstructions that could cause harm to persons if they fell require edge demarcation (set 1 metre back from the edge) or edge protection as determined via risk assessment
- Slopes steeper than 1: 2 require edge demarcation (set 1 metre back from the edge) or edge protection as determined by risk assessment

Chapter 8 Barriers:

Chapter 8 barriers are only acceptable for shallow excavations on 278 works or as edge demarcation for slopes or verges as determined via risk assessment.

<u>Surcharging</u>

Unless the excavation retention system is designed to take the surcharge, materials must be stored at least 1.5m away from the edge of the excavation or, where the excavation is deeper than 1.5m, the distance from the edge must equal the depth of the excavation.

Vehicle and plant routes will be planned and will maintain a safe distance from the excavation.

<u>Access / Egress</u>

Proprietary trench steps or other proprietary access / egress solutions should be used to provide safe means of access and egress.

The use of ladders for access into excavations is to be considered as a last resort and must be justified via risk assessment. If ladders are used for access, edge protection in the form of a handrail return is required as you step onto it.

Access formed by cutting steps into the excavation must be avoided.

Dewatering arrangements / plan

The method statement and risk assessment should identify the water management strategy where ground water is anticipated.

Dewatering methodology will be in line with the project environmental and legislative requirements.

Inspection and Monitoring

The condition of excavation(s) must be inspected daily before operatives are permitted entry and put to work, after heavy rain or other significant change.

The inspection must be undertaken and recorded by a trained and competent temporary works supervisor.

Where required as a result of the pre-construction information and ground survey, atmosphere monitoring must be undertaken.

Excavations for geotechnical & geoenvironmental purposes

Temporary excavations may be required for investigatory purposes of assessing the strength, nature and make-up of the ground or determining the presence of contamination.

These excavations can only be undertaken after obtaining all relevant services information as identified in the Buried Services section.

These excavations may exceed 1.2m depth and may not require temporary support.

Entry into excavations >1.2m deep is prohibited for any purpose.

Such excavations will be planned by a competent individual who has considered the risks associated with undertaking geotechnical investigatory excavations.

For further support and guidance when planning and undertaking geotechnical investigatory excavations, contact the SRM Head of Ground Engineering.

Emergency Arrangements

Rescue and emergency arrangements from excavations will be included into the method statement and risk assessment.

See Section 30 – Emergency Arrangements for further details.

8.7 Confined Space

Planning

Working in confined spaces is a last resort and those planning the works must investigate and consider opportunities to eliminate the need to work in confined spaces.

Where works must be undertaken in confined spaces arrangements must be identified within the method statement and risk assessment to control the confined space specified risks present, these include:

- Fire and explosion due to dangerous gases.
- Risk of unconsciousness due to raising of body temperature.
- Risk of asphyxiation due to dangerous atmosphere.
- Risk of drowning due to increase in the level of liquid.
- Risk of asphyxiation due to free-flowing solids or inability to reach a respirable environment due to entrapment by a free flowing solid.

Where one or more of the above specified risks are present and cannot be eliminated, the activity will be considered as confined space works.

Training and Competence

Persons involved in confined space works, including the top man, will successfully complete and hold an in date confined space medium risk certificate as a minimum, or training specific to the confined space type and risk.

The Confined Space Permit issuer will have also successfully attended and completed the aforementioned training.

Tools and Equipment

All tools, equipment, lighting and rescue equipment will be intrinsically safe and inspected and tested in line with statutory requirements.

Emergency Arrangements

Rescue arrangements must be detailed in the method statement and risk assessment.

See Section 30 – Emergency Arrangements for further details.

Permit

The confined space permit content must be developed and closed by a trained and competent person.

The confined space permit must be reviewed and accepted by SRM before the commencement of the works.

A confined space permit is only valid for a shift.

Inspection and Monitoring

Atmosphere monitoring must be undertaken at frequent intervals during confined space works.

8.8 Buried and Above Ground Services

General requirements

All works must be carried out in accordance with HSG47 Avoiding Danger from Underground Services.

Pre-construction and planning

Utility drawings should be requested from online providers (line search before you dig). New drawings should be requested where existing drawings are older than 3 months.

Where necessary, drawings should also consider services above ground, such as temporary electrical supplies.

Early communication will be undertaken with utility owners to confirm zones of influence and methodology, and if there is a requirement for a watch and brief.

Opportunities to remove, isolate, divert and / or protect services must be investigated. Persons working around services must be made aware of their presence.

Utility drawings should not be solely relied on, and additional checks must be completed to ensure a thorough investigation has been undertaken.

Desktop and visual surveys of work areas should be undertaken before commencing works to identify hot spots (areas where services are known or suspected).

A GPR survey must be organised and undertaken to clarify hot spots where drawings / areas require clarity. This may be organised by the client or SRM.

Ground investigation should also consider the potential presence of unexploded ordnance.

Where there is a potential risk of discovering an UXO, a comprehensive risk assessment must be developed, and a watch and brief should be considered.

Permit to Break Ground

Permit to Break Ground must be completed and accepted by SRM for all works where activities involve the disturbing, penetrating and breaking of ground.

This includes muck away and breaking out underground concrete obstructions.

Training and Competency

All those planning, developing and reviewing Permits to Break Ground must be trained and competent to the level below or equivalent.

- EUSR Category 1: Locate Utility Services or equivalent.

All those involved in undertaking trial hole operations, must be trained and competent to the level below or equivalent.

- EUSR Category 2: Safe Excavating Practices or equivalent.

Safe Digging Techniques and Trial Holes

Trial hole and investigatory excavations must be planned and accepted by SRM to prove ground where hot spots have been identified.

Non-intrusive digging methodology must be used where possible, examples of these include air lance, vacuum excavation and / or hydro excavation.

Operatives undertaking trial holes must wear flame retardant coveralls and use insulated tools and equipment.

Utility zones of influence must be respected even where services have been exposed.

Where utilities have been exposed, measures must be put in place to protect them from damage.

Genny and CAT

Genny and CAT must have a valid and in-date thorough examination certificate.

Genny and CAT must have a downloadable feature. It is recommended the eCAT4+ or equivalent is used.

Emergency Arrangements

Emergency arrangements must be detailed in the method statement and risk assessment.

Emergency arrangements must include utility owners contact details.

See Section 30 – Emergency Arrangements for further details.

Records

As-built records where utilities are found / installed, must be submitted to SRM.

These records must be shared / communicated with all relevant persons as they are updated.

8.9 Overhead Services / Structures

General requirements

Where overhead services and structures exist, robust method statement and risk assessments must be developed to identify how they will be managed and protected during works.

Overhead Services

Works must be carried out in full compliance with GS6 and utility owner requirements.

Overhead Structures

Maximum height restrictions must be established for plant and equipment.

If works are in close proximity to overhead structures, installation of protection, and warning markers such as goal posts and signage should be considered.

8.10 Slipform and Jumpform

Preconstruction and Temporary Works

Designs for Slipforms and Jumpforms designs must be developed and reviewed in line with SRM temporary works procedures. The design must also include consideration for the striking methodology.

RAMS must be developed and accepted for the striking of the rig before the commencement of slip / jump.

Access / Egress

A pedestrian hoist must be installed where the core is 12 or more floors. Consideration of the need for installation of a pedestrian hoist at lower levels can be discussed between SRM and the trade/sub-contractor.

Two points of access / egress must be provided to the rig. Where this is not possible, a robust risk assessment must be undertaken identifying how the risk of fire and emergency will be managed, and the safe evacuation of people.

Where ladder access / egress is installed from the stair tower to the trailing deck of the rig, means of edge protection / handrail alongside the ladder must be installed to prevent persons falling from the ladder and into the core.

Exclusion Zones

Exclusion zones will be directly below and cover the extent of the rig footprint. General access to the slab directly below the rig during slip / jump will be either:

- Temporary access / egress to the floor directly below the rig will be installed externally of the building or in a location away from the rig footprint and exclusion zone.
- Temporary works approved crash decks / protected walkways will be installed over access points from the core to the extent of the exclusion zone.

Fall Prevention

Risk assessments must detail fall prevention arrangements.

Edge protection on the top deck will be 2.8 metres high. The details on the type of edge protection to be installed must be discussed and confirmed with the project team, looking at the location of the system and the residual risks in the surrounding areas i.e. railways / power lines / public realm etc.

Door formers will fully enclose the core door openings to prevent falling persons and objects.

No vertical storage of materials is permitted; materials must be stored horizontally.

Where hanging materials from structural elements of the rig, the temporary works design must identify loadings. Safe working loads must be displayed on the rig.

Any gaps between the decks and the external screen should be closed using solid materials, such as plywood, to prevent materials reaching these. Expanding foam should not be used.

Rubber flaps / checker plates installed between the rig and structure must be cleared regularly during the shift.

Toeboards must be installed on the trailing deck in front door openings to prevent debris being kicked through voids / gaps.

Debris netting must be installed to the top of the door opening and continuously rolled and reattached to the top of the toeboard as the rig slips. This is particularly important during any making good/breaking activities to prevent debris falling behind the toeboard installed in front of door openings. Where hatches are installed to allow permanent precast stairs to be lowered through the rig, no materials are to be stored within 1m of the hatch doors. Before opening hatch doors, the surrounding area must be inspected for loose materials.

Hot Works and Fire Loading

No fuels, flammable liquids or flammable gases to be stored on the rig.

Cold cutting methodologies must be used for cutting steel reinforcement.

Electric jet washers only can be used on the rig.

Welding operations for the installation of steel embedment plates and other permanent structural elements will be completed under a thorough safe system of works and hot works procedure.

Induction and Access

All persons must attend a rig specific induction before being permitted access to the slipform / jumpform rig.

Unauthorised access is not permitted and the organisation in charge of these operations is responsible for preventing unauthorised persons from entering the slipform / jumpform rigs.

Safe access for SRM management must be arranged when requested.

Inspection and Monitoring

The SRM Temporary Works Coordinator and trade / sub-contractors Temporary Works Coordinator will undertake a recorded inspection prior to the first slip / jump.

Daily recorded inspections must be undertaken by the sub-contractor's Temporary Works Supervisor and the rig operator before slip / jump.

The inspection will include checks on housekeeping, access / egress and voids, and that no alterations have been made outside of the Temporary Works design.

The Temporary Works Coordinator will frequently visually check the rig as works progress.

Emergency and Rescue

Emergency and rescue arrangements must form part of activity RAMS.

Fire and emergency planning should ensure that specific arrangements are made for escape routes due to the restricted access arrangements when working on slipform / jumpform rigs.

This should also specify rig first aid and fire marshal requirements.

See Section 30 – Emergency Arrangements for further details.

8.11 Working on, Near or Adjacent to Water

Working on, near or adjacent to water should be avoided wherever possible and alternative methodologies investigated and utilised.

The following hierarchy of control must be applied when planning activities on, near or adjacent to water.

Elimination, Substitution, Engineering Controls, Administrative Controls, PPE.

Planning

Consent must be obtained from the relevant regulatory body for any structure or works liable to affect a watercourse, flood plain, flood defence etc. and any restrictions, conditions and guidelines must be complied with.

Method Statement and Risk Assessment

Activities undertaken on, near or adjacent water must be thoroughly planned, and a robust safe system of work developed. RAMS must be accepted by the Project Lead and the Head of HS&W / Senior HS&W Manager.

Collective control measures such as proprietary edge protection / scaffold handrails must be installed along leading edges to prevent persons falling into water. Fall restraint / arrest should be considered as last resort and thoroughly risk assessed.

During the risk assessment, the physical capability of the persons undertaking the works must be reviewed and recorded.

No lone working is permitted.

Tides

Tidal ranges and tide times, river flows, seasonal variations, weather conditions and water temperature must be checked before persons are put to work near, on, or adjacent to water.

Water levels can be checked using the local / relevant regulator's website.

Temporary Works

Temporary works design and solutions must be undertaken in accordance with SRM procedure and standards. See Section 69 – Temporary Works for further details.

Water Borne Diseases and Health Arrangements

A health surveillance strategy for those working on, near or adjacent to water should be developed and implemented.

Arrangements should be in place to prevent the risk of water borne diseases such as Leptospirosis (Weils disease).

Good standards of hygiene should be promoted and implemented to prevent the potential contamination of water borne diseases.

PPE

During the risk assessment, additional PPE should be considered, including but not limited to:

- Waterproof clothing
- Personal floatation devices such as buoyancy aids and / or life vests
- Chest waders.

Training and competency

All persons must be trained and competent to work on, near or adjacent to water and with regards to the equipment being used. Records of training should be available upon request.

Emergency Arrangements

A rescue plan must be developed and communicated to all those involved in the works.

When developing the rescue plan, considerations should be taken of the current / tidal strength, depth of water, water temperature etc.

Specialised rescue equipment for water working must be provided, including life buoys and throwing lines.

Due to the additional risk of water, a rescue boat should be considered for prompt rescue.

See Section 30 – Emergency Arrangements for further details.

8.12 Rope Access

General Arrangements

Alternative ways of working must be explored and considered before rope access is selected as a way of working.

Any company involved in rope access works must be IRATA registered.

Training and Competence

An IRATA level 3 trained person must be on site to rig / inspect knots and anchor points installed and supervise the works. The level 3 operative must be named in the emergency rescue plan for the works.

All other workers must hold an in date IRATA level 1 or level 2 qualifications.

Safe System of Work

A robust safe system of work must be in place and include:

- Fixing / anchor bolt details and checks to confirm that they are suitable e.g. pull out tests.
- Weight loadings.
- Access and Egress points.
- How the risk of sharp edges or other materials or factors (weather etc) that could affect the integrity of the ropes are being controlled.
- Fall prevention controls.

Emergency Arrangements

An emergency rescue plan must be in place detailing potential emergency scenarios.

Emergency rescue equipment must be always accessible on-site during works.

See Section 30 – Emergency Arrangements for further details.