

3.0 Risk Assessment

Risk Matrix

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

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

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

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

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

3.1 Hidden live services

Hazard Description: 3.1.1 Surface with potential hidden live cables

Person at risk: Operative performing the work

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All live electrics identified and warning notices fitted where live electrics cannot be made dead during work.	1
• Explosion	x		x
• Electrocution	5		5
• Loss of services	=		=
	20	All Operatives will review and understand the emergency response plan before starting work.	5
		All work is planned and supervised by a competent Person to reduce the likelihood of damage and disruption to services.	
		Before work within floors or ceiling areas, the persons completing the work shall check to ensure that are no services hidden within any work area.	
		Ensure all workers are aware of any live circuits through inductions and regular toolbox talks before starting work.	
		Live wire detector used on the surface and review the up-to-date service drawings before drilling or breaking into the wall.	
		No works to be carried out directly on live equipment - Stop the job if unknown cables are identified during the works.	
		Prevent direct contact by ensuring all insulation barriers/covers are fitted to any electrical boards, equipment etc. by a trained and competent electrician.	
		Works to control access of Site operatives into areas of risk, employing a permit to work system if there is any risk of contact with live electricity is present.	

3.2 Waste materials

Hazard Description: 3.2.1 Non-hazardous waste

Person at risk: Other Site Operatives

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	3	All waste to be segregated and recycled where possible.	1
• Environmental impact	x		x
• Fire	3	The site waste management plan is explained to all Operatives during the site induction.	3
	=		=
	9	Waste materials are disposed of in appropriate receptacles.	3
		Waste skips located a minimum of 3 meters from any temporary welfare unit/s.	
		Waste skips replaced as required.	
		Waste skips/receptacles are marked to inform Operatives of the type of waste to be disposed within each bin.	

3.3 Hand Tools (Use of)

Hazard Description: 3.3.1 Hand tools

Person at risk: Operative performing the work

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	Do not use modified tools.	1
• Personal injury including	x	Inspect all hand tools prior to use to ensure	x
• Bruising	3	that they are in good condition.	3
• Cuts	=	Keep all hand tools in tool bags/boxes when	=
• Eye damage	12	not in use.	3
		Operatives must be deemed competent to use relevant hand tools.	
		Return all defective tools and equipment to the Line Supervisor and quarantine.	
		Use all tools and equipment in the manner in which they were designed to be used.	
		Wear Level 5 cut resistant gloves when using sharp/bladed tools.	

3.4 Hidden live services

Hazard Description: 3.4.1 Underground services

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	5	All Operatives undertaking work where underground services may be present are to be suitably trained and competent, or under the supervision of a suitably qualified and competent person.	1
• Explosion	x		x
• Electrocution	5		5
• Burns	=		=
• Loss of services	25	All Operatives will review and understand the emergency response plan before starting work.	5
• Gas release			
		All work is planned and supervised by a competent person to reduce the likelihood of damage and disruption to services.	
		Cable avoidance tools and safe digging practices adopted and used to avoid danger following HSG47.	
		Erect barriers and appropriate warning signage around the perimeter of the work area to prevent unauthorised access.	
		Manually locate underground service using insulated hand tools.	
		Permit to dig issued before breaking ground.	
		Review all up-to-date service drawings before starting with work.	
		Survey the site before starting work to identify the services and other underground structures, record the location of any services, relying on plans is not sufficient.	

Hazard Description: 3.4.2 Underground services (Plastic pipework)

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	A specialist service provider is used for all repairs to plastic pipework where required.	1
• Undetected pipework	x		x

- Loss of services
- Water release
- Gas release

5 All black plastic service identified shall be assumed as live electricity cable

5

=

=

20

All Operatives involved with the work will review and understand the emergency response plan.

5

All Operatives undertaking work where underground services may be present are to be suitably trained and competent, or under the supervision of a suitably qualified and competent person.

Barriers and appropriate warning signage to be erected around the perimeter of the work area to prevent unauthorised access.

Cable avoidance tools (Plastic pipework may not be identified unless a metallic tracer, RFID marker or similar wire has been installed with the pipe) and safe digging practices adopted and used to avoid danger following HSG47.

Exposed pipework shall be suitably supported throughout the works to prevent damage to the pipework.

Immediately report all damage to the Work or Site supervisor.

Manually locate underground service using insulated hand tools.

Permit to dig to be issued before breaking ground.

Service providers provide up-to-date service drawings that are reviewed and understood by all persons involved before starting work.

Survey the site before starting the works to identify the services and other underground structures, record the location of any services, relying on plans is not sufficient.

3.5 Manual Handling

Hazard Description: 3.5.1 Manual transport of equipment or materials

Person at risk: Operative performing the work

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All staff have trained in kinetic manual handling techniques.	1
• Musculoskeletal disorders	x		x
• Work-related upper limb disorders	3	Assess the best way to lift before moving the load, with the heaviest part of the load close to the trunk of the body.	3
• Sprains and strains	=		=
• Dropped objects	12	Before transporting manually transporting any equipment or materials, ensure that the route to be taken is clear of any obstructions. Remove any potential hazards before carrying the material where possible.	3
• Slips, trips and falls		Manual handling risk assessment to be developed for the activity and understood by all members of the work party.	
		Manually handle all materials on a firm and level ground where possible.	
		Operatives shall wear gloves to increase adhesion when manually transferring loads.	
		Operatives will not lift beyond their capabilities and will seek help for any load they consider too heavy or hazardous to lift.	
		Team lift any loads that exceed the maximum guidance weight of 25kg.	
		When bending and crouching, bend from your knees, not your back.	
		When handling hot, cold or sharp items ensure correct gloves are worn.	
		Where possible, mechanical lifting aids will be used to deliver and position heavy equipment and materials.	
		Where possible, the load will be separated into smaller parts and increasing the frequency of the route rather than the overall weight being carried at any one time.	

3.6 Public presence

Hazard Description: 3.6.1 Presence of public within an event or exhibition

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

Risk	Risk Rating	Control measures	Residual Risk
Increased risk of an incident due to:	3	All staff must be aware of potential hazards and ensure issues are reported to management to maintain continued safe conditions.	1
• Lower levels of risk perception	x		x
• Violence	4		4
• Intimidation	=	An accident/incident report will be filled in for all threats of and incidents of physical abuse.	=
	12	Arrangements are in place for contact with emergency services in the event of more severe injury or medical condition.	4
		Designated Marshalls shall be trained and competent in managing crowds and traffic.	
		A CCTV system records the event.	
		Exits to be monitored continuously to ensure clear at all times.	
		If appropriate, police will be called to help with the situation.	
		Incidents shall be written in the incident book and reported to the Event Supervisor.	
		Operatives are not to engage in violent behaviour and should attempt to calm a situation.	
		Operatives must wear suitable protective footwear with non-slip soles.	
		Operatives provided with mobile phones &/or radio communication devices.	
		Operatives trained in first aid shall be recognisable by identity badges.	

3.7 Power tools (Including hand held power tools)

Hazard Description: 3.7.1 Use of power tools, including hand held power tools

Person at risk: Operative performing the work

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	A visual inspection must be carried out before use, any defects must be reported and the equipment withdrawn from service for repair or replacement as required.	1
• Cutting	x		x
• Stabbing	5		5
• Penetrating Wounds	=	All personnel wearing respiratory protective equipment shall be Face fit tested by a competent person.	=
• Entanglement with tool bits	20		5
• Lacerations		All power tools and machinery must be regularly inspected and maintained in good condition.	
• Eye damage		Allow time for equipment to stop before placing into storage.	
• Hearing damage		Always use hearing protection when using power tools.	
		Area to be segregated using barriers with appropriate warning signage to prevent unauthorised access into the work area.	
		Battery operated tools considered before the use of low voltage tools and equipment.	
		Goggles manufactured to the relevant British standard (BS EN 166) worn while operating power tools.	
		Only trained and experienced operatives are allowed to use Power tools, inexperienced or young workers are kept under strict supervision while using power tools.	
		Operatives prohibited from wearing loose clothing or gloves or use rags or other materials which could become entangled with moving parts.	
		Operatives to wear suitable protective gloves to prevent friction burns and good grip when adjusting the position.	

3.8 Use of cartridge operated tools or nail guns

Hazard Description: 3.8.1 Use of cartridge operated tools or nail guns

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	A competent person shall undertake Pre-use inspection of cartridge operating tools - In	1
• Projectile objects	x	the event of any defect or impairment is	x
• Eye injury	5	found, the equipment shall be removed from	5
• Ear damage	=	service, quarantined and labelled as not fit	=
• Puncture injury	20	for use.	5
• Electrocution		All cartridge's and tools are stored in a	
• Fire		locked and secure store under the control of	
		a competent supervisor.	
		All Operatives are to be instructed not to	
		stand within the line of fire.	
		All safety features to be tested to ensure	
		functionality before use.	
		Cartridge operated tools shall not be left	
		unattended at any time.	
		Equipment to be securely stored to prevent	
		unauthorised access and use of cartridges	
		and associated equipment.	
		Eye Protection with suitable A rated impact	
		lenses manufactured per BS EN 166 worn	
		throughout the activity.	
		Hearing protection manufactured to the	
		relevant British standard throughout.	
		No persons shall be present on the opposite	
		side of any wall, roof, partition or other	
		fixings when using cartridge-operated tools.	
		Only trained operatives over 18 years old will	
		be authorised to operate cartridge tools.	
		Operatives are not to place their face or any	
		other part of their body directly in the firing	
		line of the chamber.	
		Over-riding of any dead-man switch or safety	
		feature is strictly prohibited.	
		Records of issuing and use of all cartridges	
		and tools shall be maintained and kept	
		available for inspection as required.	

Suitable eye protection manufactured to the associated British standard (BS EN 166) is to be worn by all operatives involved with the activity.

Suitable fire extinguisher to be on site and identified.

Use of cartridge-operated tools prohibited in flammable or explosive atmospheres.

3.9 Use of hydraulic tools

Hazard Description: 3.9.1 Use of hydraulic tools

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All Hydraulic tools shall be subject to daily visual inspections and serviced regularly.	1
• Crushing injuries	x		x
• Trapping injuries	5	COSHH Assessment for exposure to hydraulic oil developed by a competent person and additional controls identified within the COSHH assessment implemented as required.	4
• Environmental impact	=		=
	20		4
		Damaged tools and equipment shall be withdrawn from service immediately and quarantined.	
		Hoses and joints to be inspected before use to identify and leaks.	
		Hoses to be part of planned preventative maintenance and management plan and inspected periodically.	
		Hands to be kept clear from any moving parts where guarding cannot be fitted (pistons/shafts).	
		Immediately report any damaged or defective tools and equipment to Site Manager or Supervisor.	
		Only trained and competent persons are permitted to use hydraulic tools and equipment.	
		Spill kits to be available on site in case of a hydraulic oil leak.	

3.10 Vibrating tools and equipment

Hazard Description: 3.10.1 Use of vibrating tools and equipment

Person at risk: Operative performing the work

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All Operatives exposed to hand-arm vibration (HAV) trained in HAVS awareness.	1
• Industrial disease	x		x
• Disability	4	All vibrating tools and equipment used are of a low vibration specification where reasonably practicable.	4
• Reduction in dexterity	=		=
	16	Each operative's exposure to vibration shall not exceed the exposure limit value (ELV) of 5m/s ² A(8) per day.	4
		Hand-arm vibration exposure calculator to be used to determine any restrictions that each specific vibrating tool can be used throughout the working day.	
		Health surveillance programme in place for employees where assessment indicates that is required.	
		Operatives shall keep hands warm to allow blood flow.	
		Operatives to be rotated to ensure over-exposure to vibration does not occur.	
		Pre-use check of all tools and equipment undertaken by the user.	
		Vibrating tools and equipment are to be maintained according to the manufacturer's instructions and tested to ensure accurate knowledge of vibration emitted by each piece of equipment.	

3.11 Materials stored at ground level

Hazard Description: 3.11.1 Equipment and materials stored at ground level

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All staff will wear protective footwear with non-slip soles and proper ankle protection at all times.	1
• Slips, Trips and Falls	x		x
• Personal injury	4	Store all equipment and materials in a designated area away from walkways and thoroughfares to prevent trips and falls.	4
• Dropped objects	=		=
• Potential obstruction during an emergency escape	16	Manage and remove potential slip & trip hazards as they arise and notify site management if additional assistance is required.	4

3.12 Ground conditions (Terrain)

Hazard Description: 3.12.1 Ground conditions (Terrain)

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All pedestrian routes to be free from ground level obstacles where possible.	1
• Slips, trips and Falls	x		x
• Sprained ankle	3	The ground shall be constructed of suitable materials and compacted where required.	3
• Joint injury	=	Lighting to be placed to ensure sufficient levels of luminance outwith daylight hours.	=
• Dropped objects	12	Operatives shall wear protective footwear with proper ankle support on site. Pedestrian routes to be periodically inspected to ensure they remain suitable. Where the gradient of the pedestrian route becomes excessive, temporary steps/ staircases installed where required.	3

3.13 Access and egress onto and around the site

Hazard Description: 3.13.1 Access and Egress onto and around site

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All site rules in relation to Covid-19 shall be adhered to at all times when on-site.	2
• Cross-contamination of other persons	x		x
• Ill-health	5	All Workers have been instructed not to travel to work if showing symptoms of Covid 19.	5
• Fatality	=		=
	20	Covid 19 toolbox talk delivered to all company workers.	10
		Daily briefing at the site that reminds workers of the specific control measures that are necessary to protect them, their families and the UK population.	
		Disposable respiratory and Personal protective equipment (Including face coverings) is worn, maintained, stored, and disposed of as per the manufacturer's instructions.	
		Re-usable respiratory and Personal protective equipment (Including face coverings) shall be worn, maintained, stored, and cleaned as per the manufacturer's instructions.	
		Workers to ensure that a 2-meter distance is maintained between themselves and other persons before entering site boundary.	
		Workers will sign in and out of site using their own personal pen.	

3.14 Use of tools and equipment

Hazard Description: 3.14.1 Use of tools and equipment

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All site rules in relation to Covid-19 shall be adhered to at all times when on-site.	2
• Cross-contamination of other persons	x		x
• Ill-health	5	All Workers have been instructed not to travel to work if showing symptoms of Covid 19.	5
• Fatality	=		=
	20	Disposable respiratory and personal protective equipment is worn, maintained, stored and disposed of as per the manufacturer's instructions.	10
		Re-usable respiratory and personal protective equipment shall be worn, maintained, stored and cleaned off as per the manufacturer's instructions.	
		Surgical gloves provided to Workers to wear when using tools and equipment.	
		Workers are instructed to wash hands after using any tool or piece of equipment.	
		Workers will be issued with personal tools and equipment to use where reasonably practicable to do so.	
		Workers will clean and disinfect regular touchpoints (doors, buttons, handles, vehicle cabs, tools, equipment etc.) after finishing with the use of tool or equipment.	

3.15 Mixing equipment

Hazard Description: 3.15.1 Operation of mortar silo

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

Risk	Risk Rating	Control measures	Residual Risk
Risk of:	4	All operatives briefed in the safe operation of the equipment before being allowed to operate. This includes information on the location of emergency shut off valves etc.	1
• Environmental impact due to overfilling	x		x
• Exposure to the hazardous substance (Mortar)	4		4
• Eye injuries caused by splashing	=	Daily cleaning is undertaken in accordance with the manufacturer's instructions	=
	16	Mortar tub shall only be transported by site telehandler forklift when it contains mortar.	4
		Mortar tub positioned directly under outlet before starting pumping.	
		Operating time set up during commissioning to prevent gross loss of containment.	
		Operatives instructed to report any defects or impairments to the Site Manager as soon as they are noticed.	
		Silo installed and commissioned by a competent person/s.	
		Spill kits located near to the silo and should be used in the event of overfilling/spillage.	
		Weekly cleaning is undertaken in accordance with the manufacturer's instructions	
		Workers to wear eye protection at all times when operating the mortar silo.	

4.0 COSHH Assessment

4.1 Substance details

Date Created: 16 Dec 19

Reviewed By: Tony Devenish

Date of SDS: 11/2015

SDS Reference: Version 6

Substance name: Ready Mix Concrete, Mortar &
Screed

Manufacturer: Cemex

Composition: Concrete: Mixture of natural aggregates, cement and water. Other ingredients may include admixtures, Fly Ash and Ground Granulated Blast-furnace Slag (GGBS). Such additions are made to alter/improve the working characteristics of the material or to affect/enhance its properties once hardened. Screed: Mixture of natural aggregates, cement and water. Admixtures, hydrated lime and/or pigments may be added. Supaflo: Mixture of natural aggregates, calcium sulphate and water.

Reference Number: 00054

4.1.1 Hazardous properties of the substance



Health Hazard and
Hazardous to the
Ozone Layer

Exposure Limits

Short Term Exposure Limit:

- Short Term Exposure Limit not provided within Safety data Sheet

Long Term Exposure Limit:

- Calcium silicate, pulverised fuel ash and limestone - 10mg/m3 - Inhalable dust
- Calcium silicate, pulverised fuel ash and limestone- 4mg/m3 - Respirable dust
- Chromium (VI) compounds and respirable silica - 0.05mg/m3 - Inhalable dust
- Chromium (VI) compounds and respirable silica - 0.05mg/m3 - Respirable dust

4.1.2 Activity Details

4.1.2.1

Activity:	Excavating
Form of Substance:	Liquid
Exposure route:	Absorption, Skin Contact
Location:	Outside in fresh Air
Duration of Exposure:	Less than 5 minutes
Amount of substance being used:	1M3
Frequency of use:	Daily
Number of Persons exposed:	Between 2 and 5
Is the material being used outside of its recommended temperature limits?	No
Susceptible persons:	None
Are any other Persons at risk from indirect exposure:	No
Health surveillance provided:	N/A

4.1.3 Control Measures

Engineering controls:

Extraction Unit
Forced ventilation

PPE Requirements



Eye Protection -
Dust Proof
Safety Goggles



Protective
Gloves



Protective
Clothing/
Coveralls and
knee pads where
required



P3 Filter where
air quality cannot
be maintained

Handling and storage details

Handling:

Wet Concrete, Mortar and Screed:

- Avoid skin and eye contact.
- The risks of dermatitis and burns are increased if the material is allowed to continue rubbing against the skin (e.g. inside boots, in gloves or through saturated clothing).
- Do not kneel or sit on the wet materials without the correct personal protective clothing.

Concrete, Mortar and Screed dust:

- The creation of dust from the cutting or surface treatment of hardened concrete should be kept to a minimum, with work methods and engineering control measures being used to reduce exposure.
- It is also strongly advised to use respiratory protective equipment in such circumstances.

Bagged dry-mix concrete and mortar:

- When handling bags take care when lifting, due regard should be paid to the risks outlined in the Manual Handling Operations Regulations 1992.
- Some bags may have a small amount of cement on the outer surface. Appropriate personal protective clothing should therefore be used whilst handling.

Storage:

- Dry mix concrete and mortar bags should be stacked in a safe and stable manner, away from any moisture.

Transportation information

- Not hazardous. Classification for conveyance – not required.

4.1.4 Emergency Response

First Aid measures:

Inhalation



- If irritation occurs, move to fresh air.
- If nose or airways become inflamed seek medical advice.

Ingestion



- Do not induce vomiting.
- Wash out mouth with water and give patient plenty of water to drink.

Skin Contact



- Wash the affected area thoroughly with soap and water before continuing.
- If irritation, pain or other skin conditions occur, seek medical advice.

Eye Contact



- Irrigate immediately with copious amounts of clean water.
- Seek immediate medical attention.

Firefighting measures:

- Concrete, Mortar and Screed are not flammable and will not facilitate combustion with other materials.

Accidental release measures:

- Recover bulk spillage without delay and, for wet mixes, while material is still in non-hardened (plastic) state, using suction system or mechanical shovel.
- The product can be slurried by the addition of water but will subsequently set as a hard material.
- Keep children away from clean up operation.
- Prevent from entering drains, sewers or water courses.

4.1.5 Disposal

Disposal considerations:

- Not hazardous. However, disposal subject to local authority current requirements / regulations.
- Keep out of reach of children.

Project: SITE FENCING

By signing below, you are confirming that you are fully aware of the risk assessment findings, the method that the work will be undertaken and the required standard of behaviour at all times while representing the company on site during this project.

[illegible]

Review of the document delivered by:

Job Role:

Neath

RAMS

Risk assessment and method statement

Neath
Reference: Groundwork's

Author:
Job role:
Date created:
Date modified:

1.0 Method Statement

1.1 - Personnel involved in this project

1.3 - Legislation

1.5 - Tools and equipment

1.7 - Emergency procedures

1.9 - Welfare provision

1.11 - PPE requirements

1.13 - Amendments and Authorization

1.2 - Training & Competence

1.4 - Access arrangements

1.6 - Waste Management

1.8 - First aid provision

1.10 - Manual handling

1.12 - Specific PPE requirements

2.0 Sequence of Works

2.1 Brick/Block Work

2.1.1 - Sign in and induction

2.1.2 - Delivery and storage of materials

2.1.3 - Mixing of materials

2.1.4 - Masonry block work and brickwork

2.2 Concrete works

2.2.1 - Preliminary foundation works

2.2.2 - Falsework and Temporary works.

2.2.3 - Installing formwork & reinforcement

2.2.4 - Reinforcement fixing: General

2.2.5 - Dismantling or Striking
Supporting Falsework

2.2.6 - Pouring concrete

2.3 Drainage, Paving, Ground Surface and Road Works

2.3.1 - Surface preparatory work

2.3.2 - Breaking surface with
hydraulic breaker

2.3.3 - Underground pipework water
supply installation

2.3.4 - Underground sewage & storm
water pipework install

2.3.5 – Duct installation

2.3.6 – Underground cable
installation

2.3.7 – Backfilling

2.3.8 - Compacting ground using
plate compactor

2.3.9 - Cutting materials with petrol
cut- off saw

2.3.10 - Kerbing and edging works

2.3.11 - Laying blockwork paving

2.3.12 - Laying tarmacadam

2.3.13 - Application of Screed with
hand tools

2.3.14 - Final Inspection

2.4 Excavation

2.4.1 - Initial preparatory works

2.4.2 - Excavation works

2.4.3 - Backfilling

2.5 Use of plant, tools and equipment

2.5.1 - Use of dumper/dump truck

2.5.3 – Use of 360° excavator for lifting

2.5.4 – Use of Telehandler using forks

2.5.5 - Use of Telehandler for suspended load

2.5.6 - Filling or refilling of fuel into plant or equipment

2.5.7 – Use of a circular saw

2.5.8 – Change blades on a circular saw

2.5.9 - Use of rapid fire cartridge hammer

2.5.10 - Use of petrol cut off saw

2.5.11 - Use of demolition hammer

2.5.12 - Operation of mortar silo

3.0 Risk Assessment

- | | |
|--|--|
| 3.1 - Confined space | 3.2 - Hand Tools (Use of) |
| 3.3 - Excavation | 3.4 - Hidden live services |
| 3.5 - Live electrical services | 3.6 - Public highway |
| 3.7 - Stacked materials | 3.8 - Suspended loads |
| 3.9 - Manual Handling | 3.10 - Public presence |
| 3.11 - Cleaning and maintenance of tools and equipment | 3.12 - Power tools (Including hand held power tools) |
| 3.13 - Vibrating tools and equipment | 3.14 - Fixed ladders |
| 3.15 - Ground level openings | 3.16 - Raising and lowering materials |
| 3.17 - Ladders | 3.18 - Work at height |
| 3.19 - Use of Telehandler | 3.20 - Ground Condition (Strength) |
| 3.21 - Pumping equipment | 3.22 - Materials stored at ground level |
| 3.23 - Ground level obstacles | 3.24 - Ground conditions (Terrain) |
| 3.25 - Tarmacadam | 3.26 - Mixing equipment |

1.0 Method Statement

Reference: Brickwork

Main road
Dyrryn Cellwyn
Neath
SA10 9HR

Start date:

End date:

Works supervisor:

Works Supervisor telephone:

Project: Neath

Reference: Groundwork's

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Date updated:

1.1 Personnel involved in this project

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

1.2 Training & Competence

All Company operatives are competent and sufficiently trained to carry out the tasks that are required as part of the project.

1.3 Legislation Associated legislation:

- Health and Safety at Work Act 1974.
- Environmental Protection Act 1990.
- Reporting of Injuries, Diseases and Dangerous Occurrence Regulations 2013.
- Construction (Design and Management Regulations) 2015.
- Provision and Use of Work Equipment Regulations 1998.
- First Aid at Work Regulations 1981.
- Personal Protective Equipment at Work (Amendment) Regulations 2022
- Health and Safety (Signs and Signals) Regulations 1996.
- The Workplace (Health, Safety and Welfare) Regulations 1992.
- Confined Space regulations 1997
- Electricity at Work regulations 1989
- Road Traffic Act 1988
- Lifting Operations and Lifting Equipment Regulations 1998
- The Control of Vibration at Work Regulations 2005
- Manual Handling Operations Regulations 1992
- Work at Height Regulations 2005

1.4 Access arrangements

All company operatives and sub-contractors will be inducted in before commencing with work on site. Access and egress from the site shall be via the designated entrance and exit routes provided by the Principal Contractor. The Site Manager or Delegate will be informed of any problems with access & egress routes should they arise. Upon arrival, all company operatives and sub-contractors will sign in at the Site office (Or other designated area) before accessing the working area on site. Before leaving the site, all company operatives and Sub-contractors will sign out.

1.5 Tools and equipment

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

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

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

1.6 Waste Management

In the event of any environmental incidents, including spillages, the Site Manager or Delegate must be informed immediately – Details of the actions to take in the event of an environmental incident shall form part of the initial site induction.

Before commencing with the work activity, a suitable route for transportation must be determined and understood by all members of the work party.

When transporting waste through internal thoroughfares, care shall be taken to ensure that interior surfaces are not contaminated or damaged by waste materials. When-handling waste, PPE is required according to site rules, or the specific COSHH assessment (If applicable).

All waste materials are to be deposited into the correct type of skip &/or waste bin according to the site waste management plan.

1.7 Emergency procedures

Development and implementation of site emergency procedures is the responsibility of the Principal Contractor. Details of site emergency procedures are within the Construction phase plan. Instruction and information related to site emergency procedures will take place during the site induction, which all personnel are required to attend. In the event of uncertainty, all site operatives should discuss with the Site Manager or Health and safety support.

If any of the site emergency procedures change, all Operatives shall be informed to ensure that they are aware of all emergency requirements at all times.

1.8 First aid provision

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

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

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

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

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

First aiders on site guidance (Quantity)

1.9 Welfare provision

Provision of welfare arrangements on site is the responsibility of the Principal Contractor.

All welfare facilities shall be compliant with Schedule 2 of the Construction (Design & Management) regulations - this includes the provision, as a minimum, of the following:

- Toilets (Including female facilities where required),
- Washing facilities,
- Clean, wholesome drinking water,
- A suitable supply of cups, drinking vessels or a water fountain,
- Arrangements for the provision of boiled water,
- Changing rooms and lockers,

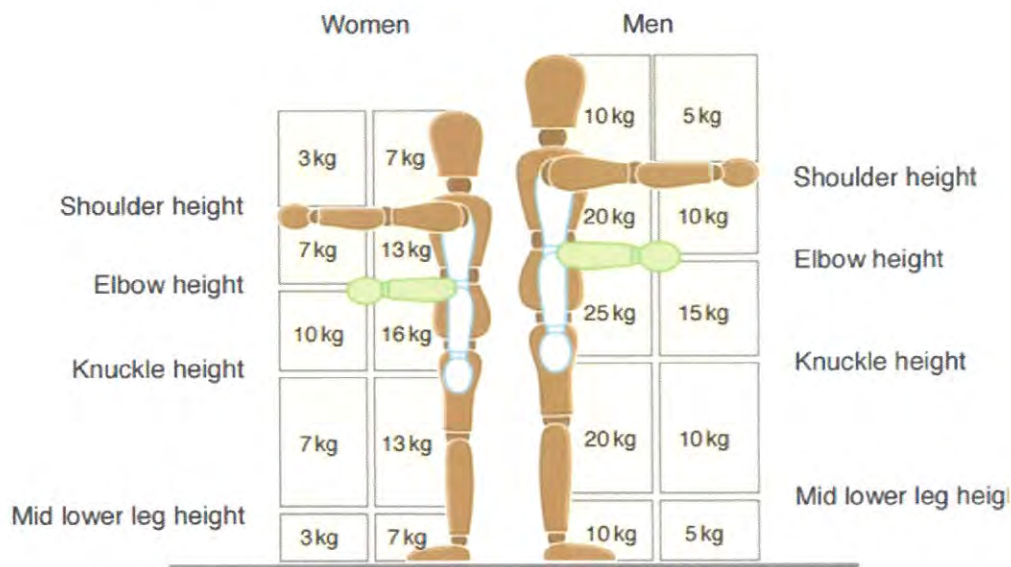
- Heating,
- Rest facilities,
- Drying facilities.

All welfare facilities on site are required to be safe and hygienic.

1.10 Manual handling

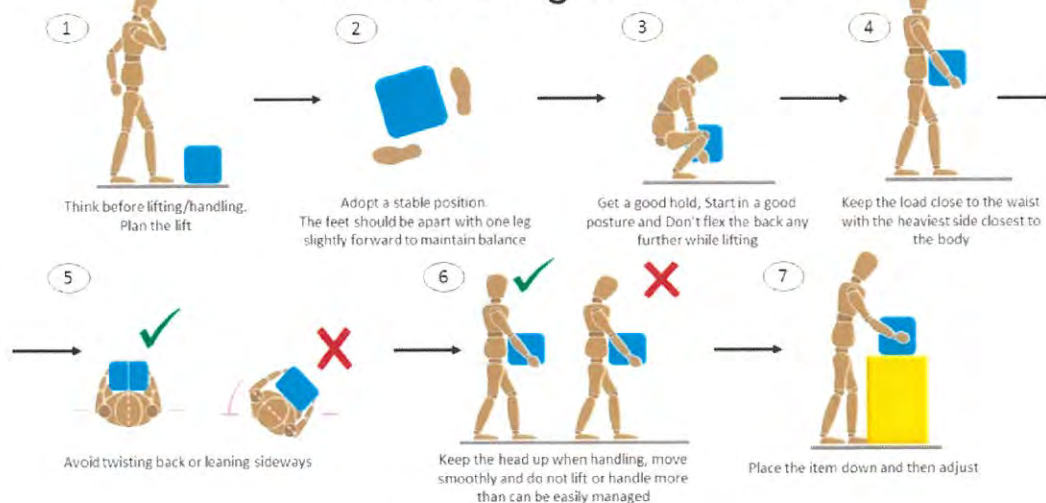
Where possible, all equipment and materials shall be transported using mechanical means.

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



Manual handling

Kinetic lifting methods



Kinetic Lifting techniques

1.11 PPE requirements



Hi Visibility Clothing (Bs en 471)



Head protection (En 397)



Ear Protection (Bs en 352)



Protective Footwear (Bs en iso 20345)



Eye Protection - Safety Glasses (Bs en 166)



Disposable Mask



Protective Gloves

1.12 Specific PPE requirements

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

Standard PPE

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

Task-Specific PPE

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

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

1.13 Amendments and Authorisation

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

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

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

2.0 Sequence of Works

2.1 Brick/Block Work

2.1.1 Sign in and induction

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

2.1.2 Delivery and storage of materials

- PPE shall be worn in accordance with risk assessment requirements.
- Ensure a designated area has been provided for the unloading of materials for project.
- Perform specific manual handling risk assessment as required for materials.
- Safe method of manual handling employed and materials loaded out to designated areas.
- Materials are stacked in a manner which assists with removal when ready for use.
- Erect barriers around the storage area with appropriate signage displayed.

2.1.3 Mixing of materials

- PPE shall be worn in accordance with the COSHH assessment.
- Operatives to review all associated COSHH assessments.
- Inspect all equipment and materials to determine defects and impairments.
- All materials shall be mixed in accordance with manufacturer's instructions and recommendations.
- Finished product to be transported into suitable container and made available for the Bricklayer.

2.1.4 Masonry block work and brickwork

Project: Neath

Reference: Groundwork's

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Date updated:

- PPE shall be worn in accordance with risk assessment requirements.
- Ensure that material is to the correct specification.
- In dry and hot weather conditions, the materials shall be dampened down prior to laying to prevent quick drying and shrinkage of cement based mortar.
- Blocks will be properly laid onto the bed of mortar.
- The process will be repeated as required.
- Prior to alighting the scaffold the scaffold shall be visually inspected by the user.
- Materials required for continuing with the development will be strategically placed on to the scaffold as required and in accordance with the safe working load of the scaffold.
- Mortar and blockwork procedure will recommence in accordance with the design of the building plan drawings from the work platform.
- Structural members and lintels will be installed in accordance with the design of the building plan drawings from the work platform.
- All waste materials shall be disposed of in accordance with the site waste management plan.

2.2 Concrete works 2.2.1 Preliminary foundation works

- PPE shall be worn in accordance with the risk assessment requirements.
- Excavation to be signed off by the Groundwork's contractor and Principal Contractor prior to the commencement of concrete works.
- The nominated Engineer will determine and set out grid lines and levels with the Site Manager &/or Works Supervisor.
- The area of the works will be segregated with signage and fencing to create a working zone ready for formwork install.

2.2.2 Falsework and Temporary works.

- PPE shall be worn in accordance with the risk assessment requirements.
- An independent 3rd party will undertake excavation operations to line and levels maintaining adequate working space.
- Wherever possible reinforcement will be fabricated at ground level as cages and lowered into the excavation by the excavator, using suitable lifting/transport slings.
- Formwork will be fabricated in the base and strutted off the excavation walls or ground.
- The base will be blinded before placement of the reinforcement cage and bolts.
- The reinforcement cage will be fabricated and lifted into position using the excavator, telehandler or site crane.

- Use either cordeck or traditional timber shuttering as the edge shutters and this will be inspected prior to backfilling, poured with concrete and vibrated for compaction.
- The shutter will be inspected for line and level and concrete will be organised.
- Concrete will be placed by excavator bucket and vibration compacted.

2.2.3 Installing formwork & reinforcement

- PPE shall be worn in accordance with the risk assessment requirements.
- Permit to work required before undertaking any works within confined spaces.
- Formwork will be constructed to the beams and slab edges using ply and hand tools.
- Steel reinforcement will be delivered by suitable delivery vehicle.
- Steel reinforcement will be mechanical lifted into position under supervision of banksman.
- Steel reinforcement will be lifted from delivery vehicle by hand and handled safely into position before assembly taking place.
- Check steel in correct location according to structural engineer's drawings.
- The steel will be tied by hand and checked for accuracy by Site Manager &/or Works Supervisor.
- Mushroom caps will be placed over any exposed steel.
- Check all support props for formwork before pouring concrete.

2.2.4 Reinforcement fixing: General

- PPE shall be worn in accordance with the risk assessment requirements.
- Reinforcement will be provided by the by an approved supplier we anticipate that it will arrive on site to suit the work activity and be lifted by Crane or other lifting appliance and stored on site for installation. (Note: All appropriate test, thorough examination certificates for both Appliance and Equipment will be in good order before use).
- Whenever practicable we intend to prefabricate reinforcement and lift into position with suitable mechanical lifting appliances.
- Reinforcement will be lifted at the lifting points, these will be areas reinforced with structural 'double ties'.

2.2.5 Dismantling or Striking Supporting Falsework

- PPE shall be worn in accordance with risk assessment requirements.
- The process of dismantling the support decking is the reverse of the erection.
- The process of striking, however, is different - A 'Permission to Strike Temporary Works' Permit must be completed and presented to the Principal Contractor, once this has been reviewed and signed off striking can commence.
- The striking area is restricted to only those people carrying out the striking; Safety signage and hazard warning bunting will be erected and maintained to identify this area.
- Firstly, each tie between each bay area to be struck is removed, then working from slab level, the jack legs are lowered - this has the effect of breaking the adhesion between the concrete slab and the moulds or plywood
- All works can be reached from slab level for striking.
- The plywood and supporting beams are available to be removed by hand and passed down for stacking.
- Although the area is cordoned off, it will be maintained reasonably tidy with plywood and beams stacked for removal.
- If pieces of plywood remain stuck to the soffit then these will be removed by hand from a mobile scaffold.
- Note: All operatives, supervisors and foreman will be given full explanation of this Method Statement prior to work commencement.

2.2.6 Pouring concrete

- PPE shall be worn in accordance with risk assessment requirements.
- Confirm contents with the specification sheet.
- Site delivery driver will set up in accordance with site traffic rules.
- Concrete can now be poured.
- Continuous monitoring of formwork to identify leaks or insufficient containment of concrete.
- Concrete vibrator will be used to distribute aggregate into gaps.
- Concrete surface swept and levelled with plant to smooth surface.
- Concrete surface swept and levelled with hand tools to smooth surface
- All formwork will be struck after it has cured in accordance with the engineer's guidelines.

2.3 Drainage, Paving, Ground Surface and Road Works

2.3.1 Surface preparatory work

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required for preparing the groundwork surface.
- Erect barriers and appropriate signage around the work area.
- Transport all materials to the worksite and store within the pre-determined designated area.
- Perform CAT scan to determine the location of underground services in accordance with HSG47.
- Confirm that no buried services are located under the proposed work area.
- Erect barriers and warning signs on pedestrian routes.
- Set up traffic management system and determine the location of the designated parking area.
- Remove existing surface including topsoil.
- Excavate ground to the specified level
- Install sub-base material and compact.
- Tidy materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.3.2 Breaking surface with hydraulic breaker

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required to use the breaker.
- Erect barriers with appropriate warning signage around the perimeter of the work area.
- Confirm that CAT scans have been undertaken to identify any given services underground in accordance with HSG 47.
- Review hand arm vibration risk assessment to determine maximum periods that the breaker can be used for throughout the 8 hour work period.
- Confirm the location of the ON/OFF switch.
- Confirm that the breaker is not fitted with a tool and carefully lay the breaker down on the ground.
- Add fuel to the power unit.
- Check the oil levels.
- Fit the appropriate steel for the ground surface to be broken by cocking the chuck lever into the open position.
- Push the steel in as far as it will go.

- Snap the lever back to lock it.
- Fit the 2 hydraulic hoses to the breaker and to the power unit
- Push the male fitting into the female fitting until the outer collar clicks into position and turn the collar 90 degrees to lock it into position
- Confirm that the hydraulic flow control lever is in the OFF position and start the power unit.
- Move the hydraulic flow control lever to the ON position.
- Check that the handles are free from grease and oil and grasp the machine with both hands.
- Adopt a comfortable stance that provides a clear view of where the work is being undertaken.
- Commence with breaking the ground.
- Apply enough body pressure to the top of the breaker to stop it bouncing.
- If the tool strikes a hidden object, stop the machine immediately, report it to the works supervisor and check to make sure it is safe to continue.
- Continue with the breaking in accordance with work requirements.
- Once complete, lay the machine down and release the tool's locking latch.
- Remove the tool from the chuck, disconnect any hoses and mount the machine on its trolley pending removal from site.
- Clean any dust and debris from the machine using a damp cloth.
- Record trigger time in accordance with company procedures
- Remove all equipment and materials from the site as required ensuring the breaker is secure and not at risk of theft.

2.3.3 Underground pipework water supply installation

- PPE shall be worn in accordance with risk assessment requirements
- Confirm location pipe works.
- Review P&ID, diagrams or other associated drawings to determine location of pipe work installation.
- Erect barriers with appropriate signage displayed around the work area.
- Install hard barrier system around any potential drop zone.
- Perform CAT scan to determine the location of underground services in accordance with HSG47.
- Excavate trench to the required depth using plant and machinery.
- Excavate trench to the required depth using hand tools and equipment.
- Install base layer in accordance to specification.
- Lay the pipework on the prepared base/ground within the trench
- Install supporting for pipes as required.
- Perform leak test on the pipework under the supervision of the Client.
- Supply a test certificate to the client.
- Apply underground services identification tag at suitable intervals.
- Encapsulate the service pipework with granular materials
- Back fill the trench.

2.3.4 Underground sewage & storm water pipework install

- PPE shall be worn in accordance with risk assessment requirements
- Confirm location pipe works.
- Review P&ID, diagrams or other associated drawings to determine location of pipe work installation.
- Erect barriers with appropriate signage displayed around the work area.
- Install hard barrier system around any potential drop zones.
- Perform CAT scan to determine the location of underground services in accordance with HSG47.
- Excavate trench to the required depth using plant and machinery.
- Excavate trench to the required depth using hand tools and equipment.
- Install base layer in accordance to specification.
- Lay the pipework on the prepared base/ground within the trench.
- Install supporting for pipes as required.
- Perform leak test on the pipework under the supervision of the Client.
- Supply a test certificate to the client.
- Apply underground services identification tag at suitable intervals.
- Encapsulate the service pipework with granular materials.
- Encapsulate the service pipework with granular materials.
- Back fill the trench.

2.3.5 Duct installation

- PPE shall be worn in accordance with risk assessment requirements
- Pre-use check on all tools and equipment required for duct installation.
- Erect barriers and appropriate signage around the work area.
- Competent banksman to be in position in preparation for Installation operation.
- Lay ducts as per detailed design stipulated in the cross section drawings.
- Install sand into the trench using a suitable lorry with a clamshell bucket.
- Install sand into the trench using a dumper.
- Lay ducts onto 75mm bed of cement bound sand.
- Manually handle ducts into position (Minimum of 2 operatives).
- Knock the ducts together using a rubber maul.
- Install cable ties around the ducts at 1 meter intervals.

2.3.6 Underground cable installation

- The cable pulling winch shall be set up in the correct location to facilitate with the cable pull.
- A Steel bell mouth placed into ductwork to protect cable when extracting.
- Steel Cable rollers will be strategically placed to assist the cable when being winched.
- Machine to be set up to trip at predetermined torque as indicated by the client.
- Gauges to be checked to ensure all are fully functional.
- Cable drum to be positioned as required.
- Winch line to be connected to the cable.
- Once the winch line is secured to the cable, all persons to clear from pull path.
- Equipment to be energised and cable to be pulled.
- Once the cable is in the correct location, the equipment is to be isolated.
- Winch line to be detached from the cable.
- Equipment to be relocated to the designated storage area.

2.3.7 Backfilling

- Remove all installed trench protection in a systematic manner.
- Store the trench protection in a suitable location where they will not obstruct and access or egress routes.
- Competent banksman to be in position in preparation for back fill operation.
- Empty sand into the trench using a suitable vehicle with a clamshell bucket.
- Empty sand into the trench using a dumper.
- Overlay fibreboards with marker tape fitted above the services and pipework.
- Backfill the trench using previously excavated earth.
- Backfill the trench with class 'A' graded granulated material.
- Compact the backfill in layers not exceeding 200mm.
- Compact layers of stone using a wacker rammer.
- Apply surface finishes in accordance with client instructions.
- Remove all signage and barriers as required.
- Transfer waste material and record quantities within the relevant form.

2.3.8 Compacting ground using plate compactor

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required to use the plate compactor.
- Erect barriers with appropriate warning signage around the perimeter of the work area.
- Transport the equipment to the work area.
- Place the machine on firm level ground within the centre of the work area and check the fuel and oil levels.
- Apply half throttle to start the engine – If the machine begins to vibrate, reduce the throttle until the machine stops vibrating.
- Position the compactor on the surface to be compacted and swing the control handle back to the operating position.
- Turn the engine's ON/OFF switch to ON, open the fuel tap and apply the choke.
- Pull the starter chord and start the engine – Repeat if engine does not start immediately.
- Once warm, release the choke and reset the throttle to the idle position.
- Take a firm hold of the control handle and guide the compactor over the surface.
- Work over the surface from left to right and then from top to bottom.
- Repeat process as required.
- In the event of dips being identified whilst compacting, apply more material within the dip and compact until a level surface is apparent.
- Once complete, set the throttle to minimum, turn the ON/OFF switch to OFF and close the fuel tap.
- Swing the control handle back to the transport position.
- Clean the plate compactor and transfer to a suitable location pending re-use or removal from site.

2.3.9 Cutting materials with petrol cut-off saw

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required to use the cut off saw.
- Perform pre-use check on the wheel.
- Immobilise the rear flange plate by inserting a locking pin into the hole in the drive belt housing.
- Unscrew the flange retaining bolt.
- Remove the front flange plate.
- Seat the new wheel onto the rear flange plate.
- Re-fit the front flange plate and screw the flange retaining bolt back into place.
- Confirm that both flange plates are secure and not over-tight, the wheel is central and spins freely.
- Mix fuel in accordance with manufacturer's instructions.
- Fill the fuel tank as required.

- Slide the ON/OFF switch to the ON position and set the choke if required.
- Pull the choke lever fully out and push in the decompression valve.
- Squeeze the throttle and press the trigger lock button to hold the throttle open.
- Pull the starter handle a few times until the motor 'coughs' then push the choke lever back in and push in the decompression valve and pull the starter handle once more.
- The motor should now fire.
- Once the engine has started, squeeze and release the throttle to release the trigger lock and set the throttle in the idling position.
- Note – If the engine floods: Push both the choke lever and the decompression valve fully in. Squeeze the throttle and press the trigger lock button to hold the throttle open. No, pull the starter handle repeatedly until the engine fires.
- Grasp the guard firmly to adjust the angle of the safety guard to suit the work and turn to the required angle.
- Fit dust suppression to the cut off saw.
- Adopt a comfortable, balanced stance that allows a good view of the cut.
- Bring the wheel up to speed before starting the cut by grasping the machine firmly with both hands and squeeze the throttle trigger.
- Gently place the wheel onto the material and allow the wheel and saw to do the work – Do not place excessive force.
- Continue to keep the cut straight until the material has been modified in accordance with the required specification.
- Once the cut is complete, move the ON/OFF switch to the OFF position and wait for the engine to stop and the wheel to become stationary.
- Clean off the saw and return to storage pending re-use or removal from site.
- Tidy surplus materials and dispose of in accordance with the site waste management plan.

2.3.10 Kerbing and edging works

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required for kerbing and edging work.
- Erect barriers and appropriate signage around the work area.
- Remove existing kerbing.
- Dispose of existing kerbing and materials into designated skips in accordance with the site waste management plan.
- Lay bedding concrete at the location where the kerbing will be installed.
- Transfer all materials required to the work area to commence with the installation.
- Apply string line along the line where the kerbing will be installed.
- Place the kerbing or edging onto the concrete bedding and apply

downwards pressure.

- Using a rubber mallet, tap the kerbing down to the required height.
- Level the kerbing using a spirit level.
- Repeat the process until Kerbing is installed.
- Cut all kerbing or edging with a disc cutter.
- Install water suppression to disc cutter prior to use.
- Allow the disc to stop rotating on the cutter prior to leaving at ground level.
- Allow the concrete bedding to set.
- Tidy materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.3.11 Laying blockwork paving

- PPE shall be worn in accordance with risk assessment requirements
- Pre-use check on all tools and equipment required for block work paving work.
- Erect barriers and appropriate signage around the work area.
- Manually distribute laying sand evenly.
- Rake the laying sand level as required.
- Compact the sand using a vibrating plate.
- Transfer blocks to within close proximity of the working area.
- Lay out block in accordance with the pattern requested by the Client.
- Compact the blockwork pavers with a vibrating plate.
- Sweep paving sand over the area.
- Sweep the paving area.
- Compact the blockwork pavers with a vibrating plate
- Tidy materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.3.12 Laying tarmacadam

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required for laying tarmacadam.
- Erect barriers and appropriate signage around the work area.
- Place and level out the sub-base materials on to the prepared surface area.
- Compact the sub base using a mechanical roller.
- Compact the sub-base using a vibrating plate.
- Hot materials to be supplied in insulated vehicles.

- Apply a bituminous emulsion adhesive to a clean surface prior to laying of materials.
- Inspect the depth and level of the sub-base to ensure a uniform surface throughout.
- Materials to be tipped into paving machine directly from the supply lorry.
- In the event of an anomalies, additional sub-base to be applied and prepared accordingly until the surface is within specification.
- Materials shall be disbursed to laying areas by mechanical means i.e. mechanical shovel or by manual means i.e. wheelbarrows.
- Surface materials will be dispersed to paving machine by mechanical shovel.
- Paving machine will apply pressure and spread the bitmac level.
- Manually load out bitmac with barrows and rake level.
- Materials to be compacted using a double drum pedestrian vibrating roller or single drum pedestrian vibrating roller where areas are not accessible by double drum roller, at a minimum temperature of 80oc
- Clean the prepared surface area and sweep clear.
- Tidy materials and store in a designated area.
- Dispose of surplus materials in accordance with the site waste management plan.

2.3.13 Application of Screed with hand tools

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment required to apply the screed.
- Check the ground markings are in place and confirm the type of road marking being applied.
- Position the hand mould in the correct location.
- Carefully pour the material into the hand mould whilst a second operative draws the hand mould across the surface to apply the material.
- Confirm alignment using a straight edge or rope.
- Depending on the type of road marking, the operator may be required to control the hand mould while following the existing marking or setting out marks, to keep alignment of the new marking.
- Allow the material to harden/cure (Approx 2 minutes)

2.3.14 Final Inspection

- Inspect the surface with the client to ensure that relevant quality standards are met.
- Make any necessary repairs required in the event of any defect or

- impairment.
- Remove traffic management and fencing.
- Handover to the Client.

2.4 Excavation

2.4.1 Initial preparatory works

- PPE worn in accordance with the task specific risk assessment
- Establish the engineering properties of the ground on which the structure will be founded and provide details on bearing capacity.
- Determine any overhead lines that may conflict with the use of plant or machinery within the area.
- Determine the emergency provisions required in the event of an accident or incident.
- In accordance with HSG47, Scan the area using a CAT (Cable Avoidance Tool) in all 3 modes, i.e. radio, power and signal generation & Genny. The genny will increase the capacity of the CAT to 10 metres.
- The CAT will be used at regular intervals throughout the task i.e. every 300 mm.
- Communicate the findings to the groundwork's sub-contractor.
- Review utility service drawings to identify the location of any hidden/buried services.
- Obtain permits for excavations where necessary (Permit to dig).
- Erect hard barriers with appropriate signage around the working area
- Confirm all underground services locations with plan.
- Stop the job if discrepancies are found whilst the relevant authorities are notified.
- Confirm the location of trenches to all relevant parties and outline the location accordingly.
- Arrange for delivery of plant and equipment
- Unload plant and equipment from the trailer ready for commencement of the operations
- Check the suitability of all equipment and ensure it is fit for purpose for the activity being undertaken.

2.4.2 Excavation works

- PPE shall be worn in accordance with the risk assessment requirements.
- All excavation works shall be planned and completed in accordance with HSG 47.
- Perform horizontal digging around and identified services.
- Protect and support any exposed services encountered during the excavation works.
- Reposition the Excavator/Digger into a safe location.
- Ensure that access to and from the excavation is sufficient.
- Dig trial holes in advance of the proposed excavation, hand dig within 500mm of all services
- Commence excavating activities.
- Remove all waste materials including spoil in accordance with local authority specifications.
- Job to be stopped immediately in the event of damage to any underground services.

2.4.3 Backfilling

- PPE shall be worn in accordance with the risk assessment requirements.
- Remove all installed trench protection in a systematic manner.
- Store the trench protection in a suitable location where they will not obstruct and access or egress routes.
- Empty sand into the trench using a dumper.
- Overlay fibre boards with marker tape fitted above the services and pipework.
- Backfill the trench using previously excavated earth.
- Backfill the trench with class 'A' graded granulated material.
- Compact the backfill in layers not exceeding 200mm.
- Compact layers of stone using a wacker rammer.
- Apply surface finishes in accordance with client instructions.
- Transfer waste material and record quantities within the relevant form.

2.5 Use of plant, tools and equipment

2.5.1 Use of dumper/dump truck

- PPE shall be worn in accordance with the risk assessment requirements.
- Pre-use inspection checklist to be complete and provided to the Site Manager for recording.
- All loads to be planned and reviewed prior to commencing with the transportation of equipment and materials.
- Undertake inspection of ground conditions and determine whether gradients are suitable.
- Review all gradients in accordance with manufacturer's instructions.
- Dumper shall only be driven on permitted access routes.
- Position the dumper within the vicinity of the plant equipment bucket and apply the handbrake.
- Isolate the Engine to the dumper.
- Load the dumper with earth/soil as required.
- Restart the engine to the dumper and proceed to the authorised dumping area.
- Dump the earth/soil in the designated area.
- Continue with the activity as required.
- Determine whether the load obstructs the view of the dumper operator at any time throughout the lift, if so, a competent Banksman is to be used.
- When reversing, a Banksman wearing hi-visibility clothing to be utilised to guide the dumper Operator.
- Banksman to use signals in accordance with the health and Safety (Signs and signals) regulations if hand signals are used to inform the operator of any changes in direction required to safely land the load.
- When not in use, the Dumper will be parked within the designated parking area with the handbrake applied and key removed from ignition.
- The Site Dumper Operator will be the Custodian of the Telehandler key at all times throughout the working shift.
- Key to be returned to the Site Manager upon the completion of the working shift.
- If the operator is unsure of any aspect of the operation they must immediately stop and consult the Site Supervisor

2.5.2 Use of 360° excavator for digging

- PPE shall be worn in accordance with the risk assessment requirements.
- Proof of competency check to be undertaken by the Site Manager (Validation of CPCS cards or equivalent).
- Operator to physically check that no maintenance is outstanding on the plant and that all safety systems including handbrake, limit sensors, brake lights and horn etc. are fully functional and work without any issues.
- Pre-use inspection checklist to be complete and provided to the Site Manager for recording.
- Seat belt to be engaged and worn by the Plant Operator.
- All digs to be planned and reviewed prior to commencing with the Operation.
- Review all gradients in accordance with manufacturer's instructions.
- Inspect all securing arrangements including any retaining straps, chains and fasteners etc.
- When reversing, a Banksman wearing hi-visibility clothing to be utilised to guide the Plant Operator.
- When not in use, the excavator will be parked within the designated parking area with the handbrake applied and key removed from ignition.
- The site excavator operator will be the custodian of the key at all times throughout the working shift.
- Key to be returned to the Site Manager upon the completion of the working shift
- If the operator is unsure of any excavation operation they must immediately stop and consult the Site Supervisor

2.5.3 Use of 360° excavator for lifting

- PPE shall be worn in accordance with the risk assessment requirements.
- Proof of competency check to be undertaken by the Site Manager (Validation of CPCS cards or equivalent).
- Operator to physically check that no maintenance is outstanding on the Plant and that all safety systems including handbrake, limit sensors, brake lights and horn etc. are fully functional and work without any issues.
- Pre-use inspection checklist to be complete and provided to the Site Manager for recording.
- Seat belt to be engaged and worn by the Plant Operator.
- All loads to be planned and reviewed prior to commencing with the transportation of equipment and materials.
- Review of lifting plan and all associated lifting equipment to ensure 6

monthly statutory inspection of accessories has been undertaken in compliance with the Lifting Operations Lifting Equipment Regulations (LOLER).

- Review condition of all materials, which require moving checking for integrity of storage boxes or pallets or other loose items, which may drop during the transfer of the load to the designated landing area.
- Undertake inspection of ground conditions
- Confirm that all loading bays are fit for purpose and all scaffolding loading bays are certified and have been inspected within the previous 7 days (Max).
- Review all gradients in accordance with manufacturer's instructions.
- Inspect all securing arrangements including any retaining straps, chains and fasteners etc.
- Determine whether the load obstructs the view of the excavator operator at any time throughout the lift, if so, a competent Banksman is to be used.
- The load should be lifted slowly from the ground to determine whether the load is safe to lift higher.
- When reversing, a Banksman wearing hi-visibility clothing to be utilised to guide the Operator.
- Banksman to use a radio to communicate between with the excavator.
- Banksman to use signals in accordance with the health and Safety (Signs and signals) regulations if hand signals are used to inform the operator of any changes in direction required to safely land the load.
- Position the excavator in a safe location away from excavation edge whenever possible.
- Secure the load to the lifting accessories connected to the excavator.
- Lift the load and place in the planned landing area.
- When not in use, the excavator will be parked within the designated parking area with the handbrake applied and key removed from ignition.
- The site excavator operator will be the custodian of the ignition key at all times throughout the working shift.
- Key to be returned to the Site Manager upon the completion of the working shift.
- If the operator is unsure of any aspect of the lifting operation they must immediately stop and consult the Site Supervisor

2.5.4 Use of Telehandler using forks

- PPE shall be worn in accordance with risk assessment requirements.
- Proof of competency check to be undertaken by the Site Manager (Validation of CPCS cards or equivalent).
- Operator to physically check that no maintenance is outstanding on the Telehandler and that all safety systems including handbrake, limit sensors, brake lights and horn etc. are fully functional and work without any issues
- Pre-use inspection checklist to be complete and provided to the Site Manager for recording.
- Seat belt to be engaged and worn by the Operator
- All loads to be planned and reviewed prior to commencing with the transportation of equipment and materials
- Review condition of all materials which require moving checking for integrity of storage boxes or pallets or other loose items which may drop during the transfer of the load to the designated landing area
- Undertake inspection of ground conditions and determine whether additional outrigger pads are required to distribute weight
- Confirm that all loading bays are fit for purpose and all scaffolding loading bays are certified and have been inspected within the previous 7 days (Max).
- Review all gradients in accordance with manufacturer's instructions.
- Inspect all securing arrangements including any retaining straps, chains and fasteners etc.
- Prior to completing the lift, the boom should be retracted inwards as far as possible and the load lowered as close to the ground level as possible to increase stability whilst travelling to the landing area.
- Determine whether the load obstructs the view of the telehandler operator at any time throughout the lift, if so, a competent Banksman is to be used
- The load should be lifted slowly from the ground to determine whether the load is safe to lift higher.
- When reversing, a Banksman wearing hi-visibility clothing to be utilised to guide the Telehandler Operator.
- Banksman to use a radio to communicate between with the Telehandler Operator.
- Banksman to use signals in accordance with the health and Safety (Signs and signals) regulations if hand signals are used to inform the operator of any changes in direction required to safely land the load.
- If the ground levels are excessively soft, place outrigger pads under the landing area of the outriggers.
- Engage outriggers and level the Telehandler.
- Lift the load and place in the planned landing area.
- When not in use, the telehandler will be parked within the designated parking area with the handbrake applied and key removed from ignition.

- The Site Telehandler Operator will be the Custodian of the Telehandler key at all times throughout the working shift.
- Key to be returned to the Site Manager upon the completion of the working shift.
- When using extension forks, the rating capacity on the Manufacturer's instructions is to be reviewed by the Telehandler Operator.
- Reduce safe working load (SWL) on the Telehandler as per the information contained within the Manufacturer's instructions.
- If the operator is unsure of any aspect of the lifting operation they must immediately stop and consult the Site Supervisor.

2.5.5 Use of Telehandler for suspended load

- PPE shall be worn in accordance with risk assessment requirements.
- Proof of competency check to be undertaken by the Site Manager (Validation of CPCS cards or equivalent).
- Operator to physically check that no maintenance is outstanding on the Telehandler and that all safety systems including handbrake, limit sensors, brake lights and horn etc. are fully functional and work without any issues.
- Pre-use inspection checklist to be complete and provided to the Site Manager for recording.
- Seat belt to be engaged and worn by the Telehandler Operator.
- All loads to be planned and reviewed prior to commencing with the transportation of equipment and materials
- Review of lifting plan and all associated lifting equipment to ensure 6 monthly statutory inspection of accessories has been undertaken in compliance with the Lifting Operations Lifting Equipment Regulations (LOLER).
- Review condition of all materials, which require moving checking for integrity of storage boxes or pallets or other loose items, which may drop during the transfer of the load to the designated landing area.
- Undertake inspection of ground conditions and determine whether. Additional outrigger pads are required to distribute weight.
- If the ground levels are excessively soft, place outrigger pads under the landing area of the outriggers.
- Confirm that all loading bays are fit for purpose and all scaffolding loading bays are certified and have been inspected within the previous 7 days (Max).
- Review all gradients in accordance with manufacturer's instructions
- Inspect all securing arrangements including any retaining straps, chains and fasteners etc.
- Prior to undertaking the lift, the boom should be retracted inwards as far as possible and the load lowered as close to the ground level as possible to increase stability whilst travelling to the landing area.

- Determine whether the load obstructs the view of the telehandler operator at any time throughout the lift, if so, a competent Banksman is to be used.
- The load should be lifted slowly from the ground to determine whether the load is safe to lift higher.
- When reversing, a Banksman wearing hi-visibility clothing to be utilised to guide the Telehandler Operator.
- Banksman to use a radio to communicate between with the Telehandler Operator.
- Banksman to use signals in accordance with the health and Safety (Signs and signals) regulations if hand signals are used to inform the operator of any changes in direction required to safely land the load.
- Engage outriggers and level the Telehandler.
- Lift the load and place in the planned landing area.
- When not in use, the telehandler will be parked within the designated parking area with the handbrake applied and key removed from ignition.
- The Site Telehandler Operator will be the Custodian of the Telehandler key at all times throughout the working shift.
- Key to be returned to the Site Manager upon the completion of the working shift.
- When using extension forks, the rating capacity on the Manufacturer's instructions is to be reviewed by the Telehandler Operator.
- Reduce safe working load (SWL) on the Telehandler as per the information contained within the Manufacturer's instructions.
- If the operator is unsure of any aspect of the lifting operation they must immediately stop and consult the Site Supervisor.

2.5.6 Filling or refilling of fuel into plant or equipment

- PPE shall be worn in accordance with the risk assessment requirements.
- Park vehicle within designated refuelling area.
- Transport equipment to the designated refuelling area.
- Pre-use check on equipment to ensure the equipment is functional and free from defects.
- Position yourself upwind to reduce the likelihood of exposure to fumes or vapours.
- Ensure no naked flames or activities which could create a spark are being undertaken within the area.
- Isolate the plant or equipment and remove the key from the ignition
- Attach the earthing cable to a suitable point.
- Remove the fuel cap from the plant or equipment.
- Insert the fuel nozzle.
- Release the fuel using the trigger on the fuel nozzle and fill as required.

- Open the jerry can lid.
- Fit the spout to the jerry can.
- Lift the jerry can and insert the spout.
- Slightly tip the jerry can and fill as required.
- When full, release the trigger and remove the nozzle.
- Hold the nozzle vertical and refit the fuel cap to the plant or equipment.
- Replace nozzle back to its storage location and secure.
- When full, tilt the jerry can back to reduce the flow of fluid.
- Place the jerry can back to ground level ensuring the spout is not pointing at the floor.
- Remove the spout and close the lid on the jerry can.
- Complete fuel use logbook as required.
- Order additional fuel if required.
- Apply granules or absorbent pads on any spills as required.

2.5.7 Use of a circular saw

- PPE shall be worn in accordance with the risk assessment requirements.
- Pre-use check on equipment to ensure the equipment is functional and free from defects.
- Check all safety systems including the emergency pressure release, emergency stop and any interlock functionality.
- In the event of any safety system not being functional, the equipment is to be isolated with adequate warning signage attached and immediately reported to the Supervisor.
- Inspect the condition of the blade checking for damaged or bent blades.
- Replace blades in accordance with the manufacturer's instructions if required.
- Highlight and mark up the material where the material is to be cut.
- Perform specific manual handling risk assessment as required for materials.
- Start up the machine and allow to run at the correct temperature &/or speed in accordance with the manufacturer's instructions.
- Start up the extraction system prior to operating the machinery.
- Operate machinery in accordance with manufacturer's instructions.
- Using both hands, Insert the material and line up the marked up section with the blade.
- Whilst running material through the blade, position hands away from the blade at all times.
- Once cut to size, remove material and reposition if further cuts are

required.

- Isolate equipment.
- Clean equipment.
- Remove material from the area pending further work.
- Remove wastage from site in accordance with the Site waste management plan.

2.5.8 Change blades on a circular saw

- PPE shall be worn in accordance with the risk assessment requirements.
- Pre-use check on equipment to ensure that all equipment required to undertake the wheel change is free from defects or impairments
- Erect barriers with appropriate signage around the working area.
- Ensure that the isolation point is disconnected, separate and secure.
- Test to ensure that the equipment is dead.
- Reposition the lower blade guard to access the blade.
- Remove the lower blade guard to provide access to the blade.
- Loosen the securing bolt whilst holding the blade to prevent the blade from spinning.
- Clean the area behind the blade with a clean, damp cloth.
- Remove the new blade from the packaging.
- Check the direction of rotation of the blade and insert the new blade onto the shaft.
- Set the flange in place on top of the blade and the shaft.
- Insert and finger tighten the securing bolt.
- Re-secure the blade.
- Tighten securing screw as required.
- Re install the circular saw in its storage area.

2.5.9 Use of rapid fire cartridge hammer

- PPE shall be worn in accordance with risk assessment requirements.
- Pre-use check on all tools and equipment operate the cartridge hammer.
- Transport the equipment to the work area.
- Erect barriers with appropriate warning signage around the perimeter of the work area.
- Confirm that the method of fixing is sufficient the object being fixed.
- Select the appropriate cartridge for the job.
- Adjust the Cartridge Hammer's power regulator to give the required penetration.