

1.0 Method statement

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Saiao Build

Site address:

23 Gravel Hill
Emmer Green
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Berkshire
RG4 8QN

Project reference: 23 Gravel Hill

Client reference: Saiao

Client: Mr and Mrs Saiao

Principal designer: Aspects Architectural Services

Principal contractor: Macbeth and Co Building Services

Start date and end date: 04/05/2020 to 27/11/2020

1.1 Sequence of operations

1.1.1 Plant or equipment

Using telehandlers to lift suspended loads

- The supervisor must ensure that the operator has proof of competence, which should include proof of training (CPCS card or similar), proof of familiarisation with the telehandler to be used and adequate experience of the task to be undertaken
- Before lifting any load the operator is to inspect the load does not exceed the Safe Working Load (SWL)
- When using telescopic boom, the operator to ensure the reduced SWL is taken into consideration as per the manufactures instructions.
- Where it is stated “thorough examination certificate (TEC)”, you should confirm that the excavator requires a 12 month TEC and the accessories a 6 month TEC. This is to avoid clarify to the operator the timescales, to avoid confusion and ensure compliance.
- The supervisor must ensure that the telehandler being used has been maintained and has a current report of thorough examination covering both the machine and any attachments
- The supervisor must carry out a toolbox talk before work starts covering the task to be carried out, personnel involved, work area, risks, exclusion zones and procedures
- At the start of each day or shift the operator should carry out the pre-use checks specified in the manufacturer's operating instructions
- Seat belts must be worn at all times
- The telehandler's brake engine must be switched off and then applied before the operator leaves the cab. Before any personnel approach the telehandler to secure loads etc. the operator must ensure that the telehandler is made safe i.e. the brake applied and the engine switched off
- The operator should plan the route and final destination of the load, making sure the route is clear of all obstacles, that there are no width or height issues with the load or telehandler and that the final destination is a safe and suitable place for the load. If the route involves travelling or working on slopes, the manufacturer's operators instructions should be consulted before traversing gradients and cross slopes
- Where you have stated planning a route : please add when working near excavations and walking routes stop blocks and adequate warning signs should be positions to prevent the collisions with pedestrians and plant falling into excavations. Also, excavator driver to ensure no overhead services (overhead line equipment) above.
- Before lifting a load the operator should get out and inspect the load - check for warning signs, centre of gravity, loose materials on the load or anything anchoring the load
- Before lifting the load the operator should check ground conditions to make sure it is suitable for them to drive and use stabilisers on. Spreader mats should be used if the ground conditions or weight of the load make it necessary to do so
- The operator should then lift the load approximately 150mm (6 inches) and check the load position, weight and balance
- The load should then be secured, strapped down or fastened where necessary
- Before setting off, the boom should be telescoped in as far as possible and the load lowered as close to the ground as possible to increase stability whilst travelling
- If the load obscures the operator's view when travelling, a banksman should be used. A banksman should also be used when reversing
- Before placing the load in the final position the operators should check the ground conditions
- If the operator is unable to clearly see the load's final position, a qualified banksman should be used to signal to the operator when landing the load
- When the lifting operation has been completed, the telehandler should be stored in a safe place, on level ground where possible, with the handbrake engaged, the boom and fork arms/handling attachment lowered to the ground, the key removed and the cab locked. The key should be stored in a safe place and not left in the machine
- When using extension forks the safe working limit should be reduced as the standard Rated Capacity chart will not give the correct information as it only applies to loads on standard length forks. Information on the rated capacity of extended forks can be found in the manufacturer's operating instructions
- If the operator is unsure of any aspect of the lifting operation they must immediately stop and consult their supervisor

1.1.2 Manual handling

Pushing and pulling

- Pushing and pulling is done using the body's own weight; lean forward when pushing, lean backwards when pulling
- Ensure you have enough grip on the floor to be able to lean forward/ backwards

- Avoid twisting and bending your back
- Handling devices have handles/hand grips so that you can use your hands to exert a force; handle height should be between the shoulder and waist so that you can push/pull in a good, neutral posture
- Handling devices are well-maintained so that the wheels have appropriate size and they run smoothly
- Floors are hard, even and clean

Dual / two person lift

- Decide who will be caller (The caller co-ordinates the lift and ensures each lifter knows what to do and when)
- Assess the weight
- Correct positioning of feet and straight back - Comfortably apart with one leg slightly forward to maintain balance; One foot positioned in direction of movement; Other foot where it can give maximum thrust to the body
- Correct grip or use of handles where applicable - A full palm grip will reduce muscle stress to the arms and decrease the possibility of the load slipping
- Continue to dynamically assess the environment during lift / movement
- Lift together and relax load down together

Control for loading of vehicles

- Consider the equipment required and how it will be stowed in your vehicle. Rackign to be utilised and maintained if installed
- Check load capacity of vehicle and always distribute load evenly
- Secure items so they are not going to cause you, the vehicle or the equipment any damage during travel
- Load the vehicle so that unloading occurs on the non-traffic side (if possible)
- Load items in the order they are required and safe to get at when you have stopped
- Remember to allow for any passengers that need to be carried

1.1.3 Site set-up

Installation of compound and storage areas

- Prior to using the excavator, drawing and surveys of underground services should be checked.
- Ground is to be CAT Scanned to survey for buried services.
- Operator and supervisor are to ensure emergency procedures are in place (i.e. in the event of striking buried services, discovering contaminated ground, buried asbestos) prior to breaking ground.
- Use the excavator to remove the existing topsoil and load it into the dumper for it to be taken to the topsoil stockpile
- The excavator must then blade off and level the existing ground
- Once the haul road is completely excavated and levelled, place a layer of geotextile material on the excavated area
- Once all the topsoil has been stripped and transported to the stockpile area, cover the stockpile with geotextile to prevent damage to the material
- Then place and compact a layer of MOT Type 1 stone or similar. The dumper must tip the stone onto the laid out geotextile materials, where the excavator must level the stone out to the required depth compact using a roller

Installation of office and welfare facilities

- Position the lorry loader at the nominated lifting area and follow the risk assessment for operating vehicles onsite
- The lorry loader operator must set up the lorry loader as per the manufacturer's instructions. Suitable supports must be placed under the stabilised legs
- Lorry loader will raise jib and position so as to attach O-ring of lifting chains and inertia reel fall block to crane hook
- Lorry loader operator must raise the crane and position it over the centre of the portable unit, generator and fuel bund and through suitable access to the roof of the portable unit, must attach lifting accessories to the unit. Use a safety harness/ inertia reel fall arrest assembly during any roof access and secure it at ground level. Secure this to the lorry loader hook block and fit at ground level
- Secure an appropriate number of guidelines to the portable unit to assist in controlling the potential for unit swing
- Now raise the lorry loader jib to take the weight of the load and ensure that the lift is centred and stable (carry out a test lift). Then slew the load over to the final position and lower it into place
- Once the lorry loader operation is complete the slinger/banksman must remove lifting accessories from the lifting eyes of the portable unit, gaining access by use of a suitable access system
- Once the four legs of the lifting accessories are removed, the lorry loader operator must raise the jib, remove the lifting accessories and stow the crane for transit. The operation is now complete

- For repeat lifts, follow all previous sections as above
- Collect all waste and remove from site
- Once all the units are placed, a qualified electrician must connect up all the units to the generator, do the required testing and supply the completion certificate

1.1.4 Fencing

Installing heras fencing

- Run through the layout of the heras fencing with the site supervisor according to the layout drawings
- Lay down rubber footings according to the layout for the first fencing panel
- Lift the fencing panel into place with plant lifting equipment
- Lift the fencing panel into place by way of a two man lift
- Double clamp the fencing panels and add bracing if deemed necessary by the site supervisor
- Repeat the above process until the fencing layout is complete
- Add triangular heras fencing braces to any long lengths of fencing panels

1.1.5 Scaffolding

Delivery or removal of scaffolding from site

- Ensure a safe, designated area has been provided for the parking and unloading of scaffolding materials for the project
- Where materials cannot be left on trailers, provide stillages and bins
- Exclusion zone to be created around the scaffolding, using barriers to prevent access with adequate warning signs and information.
- If on a public highway, cones and signage must be in place plus pedestrian management
- Trained operators must use correct manual handling techniques at all times, conforming to SG6;10
- Hand tools to be tethered to operatives
- Keep scaffold materials clear of buildings when lifting or lowering
- Use a guide rope on long loads when lifting or lowering
- Use a 300kg rack and pinion hoist to access materials to and from the work place
- Prior to working at height, a rescue plan is to be arranged between the operatives and the supervisor included within the risk assessment and briefed to all workers
- Guard rails to be fitted (handrails have a minimum height of 950 mm, and that any gap between the top rail and any intermediate rail should not exceed 470 mm)
- Toe Boards to be fitted, of a minimum of 100mm in height
- Ladder to be suitably positioned and secured to allow access to the scaffold, and a ladder hatch fitted to prevent falls from height
- Where required brick guards to be installed to prevent falling objects
- Scaffold is to be inspected and inspection tag fitted at the ladder access point to show it is safe to use” / “dismantling first point should be to remove the scaffold tag

Erecting multi lift independent tied scaffold

- Place the base plates and sound sole plates to form 4 + 2 board wide arrangement from the building line
- Standards must bear centrally onto a base plate and sound timber sole plates. Place the standards to the designated bay spacing as required by the duty of use. Select and place them to provide a staggered joint arrangement between multi lifts
- A longitudinal ledger and transom are then to be secured to the uprights using double couplers to form a self-supporting frame fixed 150mm above the base plates
- Secure alternate pairs of standards into position and vertically plumb using a suitably fixed temporary brace. With the temporary braces in place, the first lift level of framework can commence
- Place ledgers in order to provide a staggered joint arrangement between bays and lifts connected to the upright by a load bearing couplers. The ledger and upright can be plumbed horizontally and vertically using the braced members
- Place the main transom tubes across the ledgers within 150mm of the braced uprights and secured using single couplers
- The outside uprights can now be vertically plumbed on the braced line
- Intermediate transoms are required on a fully boarded lift at 1.2m centres secured with single couplers with a butt joint to support each of a fleet of boards. Non-working lifts minimum 3 number transoms per board

Dismantling multi lift independent tied scaffold

- All operatives must report to the principal contractor when entering site and request induction training
- A method statement briefing on the method statement and risk assessments must be given by the scaffolding supervisor and all persons present recorded in the site file.
- The principal contractor must secure the area below the scaffolding against unauthorised entry before work commences
- Fall arrest harnessing must then be checked and worn by all operatives, and the rescue procedures checked for suitability
- Then commence dismantling in accordance with HSE Guidance SG4:10, always working from a boarded platform directly below the area being dismantled. Wear fall arrest harnessing at all times during dismantling
- Pass materials down to each boarded level to operatives and stack and secure on the loading bay, ready for removal by the onsite cranes
- As each section of scaffolding is removed, secure all remaining scaffolding so that it is in a safe condition at all times
- All persons involved in the dismantling works must be issued with and wear fall arrest harnessing, secured to a suitable anchor point at all times
- At no time may any person dismantle the scaffolding platform that they are using. Carried out all works from below
- Remove materials as work progresses, ensuring a clean working area at all times
- Load the materials onto the scaffolding lorry and remove from site as works progress

1.1.6 Excavation

Initial works

- An emergency plan is to be agreed, to follow in the event of striking buried services, discovery of buried asbestos
- Suitable welfare arrangements to be arranged prior to starting work
- An emergency rescue plan to be agreed, in the event of 1) collapse of the excavation 2) asphyxiation due to hazardous gases 3) water/flooding
- Methods of suitable monitoring to be agreed and implemented (i.e. air monitoring with an alarm system)
- Obtain underground service prints, call the local authorities and obtain permits where necessary for excavations
- Lay out all the appropriate signage to cordon off a safe working area and adjust as works proceed or change
- Use cable location equipment to identify all underground services and clearly mark locations onsite
- Double check all underground services locations with plans. Reconfirm with the local authorities if there are any discrepancies
- Outline the locations of excavation on site, ensuring the ground works and/or surveying team confirm the locations of trenches
- Check the excavator's inspection permit, ensuring an up to date inspection has been undertaken
- Unload the excavator from the trailer and deliver to the location
- Deliver and prepare materials that are adequate for shoring any trenches

Excavation works

- Protect and support any exposed existing services
- Move the excavator/digger into a fully guarded area
- No use of mechanical excavators within 500mm of services
- Excavations below 1.2m, the type of substrata to be inspected and if required adequately shored implemented
- Position the compressor away from the excavation but within the guarded work area
- Remove the pneumatic breaker and hose from the vehicle, check for damage and connect the hose to the breaker and the compressor
- Dig trial holes in advance of the proposed excavation. Hand dig trial holes within 500mm of all services
- Commence excavating
- Remove spoil from site according to the local authority specifications, soil to be stored at a safe distance away from the excavation
- Excavate for open-cut ensuring that if the excavation is 1.2m or deeper, it is adequately shored
- Excavate for launch pits ensuring that if the excavation is 1.2m or deeper, it is adequately shored
- Excavate for reception pits ensuring that if the excavation is 1.2m or deeper, it is adequately shored
- Ensure access to and from the excavation by the use of a ladder positioned on a firm base, tied and footed
- Ensure that safe access to the properties is maintained by the use of walking boards and steel plates
- Guardrails and toe boards to be positioned around the excavation to prevent falls from height, prevent objects and materials falling into the excavation
- Fixed barriers such as stop blocks to be positioned at a safe distance around the excavation to prevent the excavator

- driving/falling into the excavation
- Excavations to be covered/backfilled when not in use
- Allow for the repair of services
- Allow for the installation of services
- Carry out reinstatement once the works are deemed complete

1.1.7 Concrete works

Preliminary foundation works

- Excavation of the foundation/slab must be carried out by machine excavators to the required depth
- The setting out engineer must set out grid lines and levels under the supervision of the site supervisor
- The area of the works must be segregated with signage and fencing to create a working zone ready for formwork installation

Installing formwork & reinforcement

- A permit to work is required before undertaking any works in confined spaces
- Construct the formwork to the beams and slab edges using ply and hand tools
- Deliver the steel reinforcement by flatbed lorry
- Mechanically lift the steel reinforcement into position under the supervision of a banksman
- Lift the steel reinforcement from the lorry by hand and handle safely into position before assembly takes place
- Check the steel is in the correct location according to the structural engineer's drawings
- The steel must be tied by hand and checked for accuracy by the site supervisor
- Place mushroom caps over any exposed steel
- Check all support props for formwork before pouring the concrete

Pouring concrete

- Check that the correct concrete type has been ordered when taking delivery of the concrete
- Operate a small concrete mixer, adding aggregate mix with water as per the instructions from the manufacturer- operatives to wear suitable Respiratory Protective Equipment (RPE)
- Use a barrow and shovel to distribute the concrete safely around site to the pre-designated locations
- When using a concrete pump, complete and sign a permit before pouring
- Reverse the pump lorry under the supervision of the banksman to the works area and set up in accordance with the manufacturer's instructions
- The pump operator must move the boom into position, with the operative located at the end to move the pipe to the desired location
- Pour the foundations
- Pour the slab
- Use a concrete vibrator to distribute the aggregate into any gaps
- Sweep and level the concrete surface with plant to smooth the surface
- Sweep and level the concrete surface with hand tools to smooth the surface
- All exposed steels must have mushroom caps
- Strike all formwork after it has cured in accordance with the engineer's guidelines

Slab cutting

- Remove the floor saw and equipment from the trailer/van
- Transfer the equipment onto site via the main entrance of the building
- Liaise with the site supervisor for the location of the works and the marking out of cut lines
- Liaise with the site supervisor to issue a permit to work if required
- Transfer all necessary equipment to the work location
- Establish a work area and set up the floor saw, water and 3 phase power supplies
- Ensure the hose and leads are free from footways, access routes and walkways so as not to form a trip hazard
- Attach a 600mm diameter blade to the floor saw
- Apply any extra PPE required i.e. ear defenders, eye protection
- Power up the saw and begin cutting into the slab
- Cut into the slab to full depth – estimated at 200mm deep
- Hoover up the slurry created and empty it into the designated skips

- Complete all cutting
- Arrange for breaking out to be completed at the specified times
- Complete the breaking out and stockpile for labour to clear
- Ensure all areas are left clean and tidy for inspection and are free from obstacles to other trades

Cement rendering

- Prepare the surfaces, remove any loose paint, dust or loose debris and plants. Scrub off any mould with a bleach or fungicide solution and hose down the wall to remove any dust and dirt that could stop the render from adhering
- Set up the mixer, water, sand and cement as close to the rendering work as possible. Ensure there is a clear and dedicated path for the wheelbarrow when distributing cement render to areas
- Using a cement mixer, create a rendering mix as suited for the conditions and distribute it by wheelbarrow to the required areas
- Fix screed battens 900mm apart to the wall and dampen the wall ready for the first coat of render
- Apply the first coat of render using a firm hand and a steel plastering trowel and level it out with straight edge. Scratch the surface with a steel comb to provide a bonding surface for the second coat
- Once the first coat has adhered to wall, apply a thicker 2nd coat of cement render and build up to the thickness of the timber battens
- Level out with a straight edge
- Remove the timber battens after an hour, and fill in holes using a pointing or gauging trowel and scrap surplus render using a straight edge
- Once the render is hard enough, use a float in a circular motion to remove air holes
- Sponge down the rendered wall ready for decorations, and remove excess materials and plant from the area

1.1.8 Steelworks

Arrival onsite

- All engineers must arrive onsite and sign in at the site office
- All engineers must undertake a site induction

Demolition of existing structures

- Undertake a thorough design of the safe sequences of demolition activities before any work proceeds
- Cordon off all demolition or strip out areas. Only competent or trained operatives can enter this space
- Discuss risk assessments with the work team before starting works and update as necessary
- All members must wear correct PPE at all times
- Implement a considered and Piecemeal demolition approach
- Use mechanical handling aids when removing structural items
- As work progresses, the site manager must ensure a safe system of work is employed at all times and updated as necessary

Unloading of deliveries

- Prior to transporting deliveries. The transportation route should be checked to ensure the load can be safely transported
- Delivery vehicles must be guided into the unloading area by the designated banksman
- Ensure the banksman guides the forklift truck operator during the unloading processes
- Double check all items that are to be unloaded to ensure safe working load capacities are satisfied
- Lay down all unloaded loads in a safe manner, and within a predesignated area

Setting out for new steel structural works

- Set up and cordon off the working area, remembering to leave plenty of manoeuvring room to move the materials and equipment around in. It is essential that no other persons or equipment etc. are allowed in the working area, as this may restrict the works and prevent access to parts of the building where fixings need to be made, as well as causing additional hazards for anyone below the working area
- Under no circumstances must any members of the public, visitors or persons employed on the site be permitted within the working area unless accompanied and supervised. Safety helmets must be worn by all persons within this area whilst the works are being carried out
- To reinforce the hazards associated with the works, warning and safety signs must be erected around the working area; these must include 'Keep Clear', 'No Admittance to Unauthorised Persons' and 'Warning, falling objects'

- Ensure floor areas are marked out by a supervisor to identify base plate locations
- Drill holes in floor using a 110v drill
- Insert through bolt floor fixers into the drilled holes

Installation of steel columns

- Manoeuvre columns into the lifting area using a forklift truck and/or skates
- A banksman must guide the forklift driver, or other manual handling plant operator, into the agreed column location
- Ensure the forklift driver or plant operator lifts the column into place with guidance from a banksman
- Lower the column onto mountings on the base plate once the column is vertical and bolted into position
- The sling must be unhitched from the steel by an operative working from above on access equipment such as a Mobile Elevated Work Platform
- All scissor lifts/ MEWPS need an in date 6 month thorough examination certificate, must be inspected before use with a documented weekly inspection

Installation of beams

- Move beams into the area using a forklift truck, or use skates and manually push them into the designated area
- Beams must be lifted into place using a forklift truck and directed by a banksman
- Once the beams are in place, operatives must bolt them into place from safe working platforms using nut runners
- Tighten all bolts to the correct torque and mark with white marker pen

Installation of joists

- The joists must be moved into the area by a forklift operator and guided by a banksman
- The joists must be lifted onto scissor lifts, with joists resting on the basket of the lifts and one scissor lift positioned at each end of the joist
- The joists must be lifted in a slow, controlled manner at the same time and guided by a banksman
- Lift the joists onto the pre-attached cleats on the beam
- Align the pre-drilled holes in the joist with those in the cleat and insert bolts. Repeated on the other side
- Tighten nuts using nut runners
- Work should stop immediately if any of the above cannot be undertaken safely and in a smooth manner
- Only Scissor lifts that have been confirmed as intended to carry out this type of task is to be used. Always follow manufacturer guidance on correct use of the equipment. Generally speaking scissor lifts will not be appropriate for this task and alternative access equipment is to be used with full lifting safe system of work (SSOW) in place

Staircase installation

- Any areas on a mezzanine staircase to be installed must be safely cordoned off to prevent falls from height
- Assemble the main staircase on ground floor level
- Prior to lifting the operator will inspect the load to ensure the SWL of the forklift is not exceeded
- Sling and other lifting accessories will be inspected prior to use for damage and defects, 6 month thorough examination certificate in place
- Lift the staircase into position using a forklift truck and sling. Operatives working from safe working platforms or scissor lifts must guide the staircase into place
- Once the staircase is in position, operatives must bolt it into place and install handrails
- Operatives must then install the staircase surround

1.1.9 Bricklaying

Delivery of materials

- Ensure a safe, designated area has been provided for the unloading of masonry materials for the project
- Employ a safe method of manual handling and load materials out to the designated areas

Mixing of compounds

- Add the compounds to the mixer plant in a safe area according to the supplier specifications and use
- Ensure the safe use of plant at all times

Demolition of brickwork

- Ensure all services are isolated and rendered safe before commencing work
- Create a safe working zone cordoned off from other workers or the public
- Install supports to areas as requested by the site supervisor or structural engineer according to the demolition plan
- Demolish structural elements under the control and supervision of a competent person
- Maintain a safe access to the work face at all times
- Remove debris at regular intervals and dispose of it according to site plans

Formation of masonry walls

- Survey and set out
- Apply bitumen compound and lay a damp-proof course at the base
- Lay bricks, cement mortar and pointing
- Repeat the above allowing for structural openings and supports according to the approved drawings
- Install lintels and structural members where needed
- Remove waste materials according to the site waste management plan

1.1.10 Roof works

Inspection and access onto roof

- Perform a remote inspection using mast photography or videography where only visual inspection is required
- Follow the risk assessment to eliminate any inherent risks when accessing the roof is required
- Follow all safety precautions in the risk assessments
- Those accessing the roof must have relevant training
- Erect barriers at ground level to create a work area at the point of access to the roof to prevent access by staff or members of the public
- Use a MEWP to inspect or access the roof
- Erect mobile access equipment or a secured tower scaffold to inspect or access the roof
- Use fixed scaffolding to access the roof
- Ensure adequate edge protection to the roof has been provided, where suitable edge protection is unavailable, a harness (restraint lanyard) should be used, to prevent operatives accessing to the edge of the roof
- Use dedicated access to the roof if available

New roof trusses

- Fix the trusses in sequence and place in accordance with the working drawings
- Engineers trained to work from height must wear fall protection at all times
- The principal contractor must provide relevant working platforms including scaffolding, edge platforms, netting etc.
- Ensure the slinger/banksman prepares the loads for lifting from trucks
- Then lift the bundle of trusses onto the wall plate and temporarily brace until needed
- The bundle of trusses must be carefully separated by two joiners. Manually lift the first truss into position and temporarily brace to both wall plates
- Then manually lift the remaining trusses into position and temporarily brace back to the first truss
- Fix the diagonal bracing to the top of the first truss and nail to the wall plate using 75mm-long galvanised nails
- All longitudinal bracing will be fixed to the trusses, ceiling ties and struts using 75mm long galvanised nails
- Then fix the trusses to the walls and gables by bracing them using galvanised metal retaining straps
- The two joiners must then remove the temporary bracing and inspect all trusses to ensure they are aligned vertically and free from bowing

New roofing structure or cladding

- Employ the correct materials and delivery techniques
- Install the new roof structure using training engineers
- Install the new roof cladding using trained engineers
- Transfer wastage to the ground safely

Installing vapour control layer

- Loosely lay a polythene vapour control layer onto the deck

- Prime the deck where required and install a vapour control layer onto the deck

Installing insulation

- Lay insulation in accordance with the manufacturer's guidelines and fix to the decking
- Lay insulation in accordance with the manufacturer's guidelines and adhere to the VCL using polyurethane adhesive
- Torch and lay the insulation in accordance with the manufacturer's guidelines
- Loosely lay the insulation onto the membrane and secure in place with roof finishes i.e. paving slabs or pebbles

Detailing

- Carry out felt details in two coats using torch on felt. Cut the felt for the perimeter detailing to size and offer up into position. Expose half of the felt and pass a gas torch over the film to activate the bitumen underside, and then press into position. Then install the other half in the same manner
- Perimeter detailing will be formed with a combination of single ply metal trims mechanically fixed to the substrate and membrane welded to the coated metals
- Form perimeter detailing with a combination of single ply metal trims mechanically fixed to the substrate and membrane welded to the coated metals, and adhere it to the variety of substrates where required using the manufacturer's contact adhesive. Hot air weld joints using heat guns

Roof finishes

- Roll out a protection/filtration layer over the deck. Secure this with a drainage/water retention layer, cover in filter fleece with substrate and lay bio-diverse products over to the required specification. Lift all green roofing products to roof level and distribute by crane, supplied by the main contractor
- Lay pebbles as per the specification
- Paving slabs mounted upon 15mm pave pad supports must be positioned on top as ballast

1.1.11 Joinery and carpentry

Removal of existing joinery

- Remove any existing joinery onsite
- Dispose of joinery according to the site waste management plan

Delivery of materials

- Ensure a safe, designated area has been provided for the unloading of joinery materials for the project
- Employ safe method of manual handling and load materials out to specific areas of work

Joinery 1st Fix

- Working methodology to be agreed with operatives / contractor to detail correct ways of working and agree client rules & expectations whilst on site
- Set up an appropriate cutting station at a safe distance from other work
- Fit the ply groundings to the wall for fixing points behind the wall
- Fit the door frames according to the manufacturer's specification and approved layout
- Fit the floorboards according to the manufacturer's specification and approved layout
- Fit the staircases according to the manufacturer's specification and approved layout
- Fit the windows according to the manufacturer's specification and approved layout

Joinery 2nd Fix

- Fit the skirting boards according to the manufacturer's specification and approved layout
- Install the door surrounds/architraves according to the manufacturer's specification and approved layout
- Install the doors according to the manufacturer's specification and approved layout
- Fit the intumescent strips to the doors and frames
- Install the shelving according to the manufacturer's specification and approved layout
- Install the door handles and locks according to the manufacturer's specification and approved layout
- Remove waste from site according to the site waste management plan

1.1.12 HVAC

Pipework installation

- Pipework must be delivered to a safe, pre-determined secure location onsite
- Install CHW and LTHW pipework
- Organise and agree hot works with the client management before undertaking hot work
- Lag the pipework
- Tie pipework to the tray

Low voltage electrical works

- Advise the user of risks of electric shock, burns, and fire before commencing and undertake necessary site checks
- Isolate associated services as required
- Erect a safe working platform where needed by a trained operative
- Install a low voltage cable, tied to the containment or anchored to a predetermined route
- Connect to the associated equipment

Test & Commissioning

- Test the pipes for leaks under pressure in the presence of the client's representative
- Perform hydraulic/smoke test and obtain certification from the client's representative
- Maintain a 'test certificate', duly signed by the representatives of the client and contractor
- Erect a safe working platform where needed using a trained operative
- Power up the system using trained operatives
- The contractor must undertake commissioning as per the manufacturer's specifications
- The manufacturer must undertake commissioning as per the manufacturer's specifications

1.1.13 Electrical

Electrical isolations

- Obtain a permit to work
- Place warning notices and secure the areas where isolations are to be undertaken
- Conduct a fault diagnosis using approved test instruments
- Identify isolation points and verify de-energisation of electrical circuits and equipment
- Lock off the isolations to eliminate accidental re-energising

Removal of existing electrical services

- Remove existing LV cabling
- Remove existing HV cabling
- Remove all redundant electrical cabling
- Remove all items from site according to site waste management procedures

Working in live electrical risers

- Verify if a permit to work is required
- Carry out a tool box talk on the method statement with all the operatives undertaking or associated with the works
- Place warning notices and secure the areas where isolations are to be undertaken
- Conduct a fault diagnosis using approved test instruments
- Identify isolation points and verify de-energisation of electrical circuits and equipment before continuing with the works
- Lock off the isolations to eliminate accidental re-energising

Installation of a new distribution board

- Install the new distribution board next to the incoming supply
- Drill the holes as per the design, insert the rods and fix into position as per the manufacturer's instructions, add the Unistrut to the correct position and tighten the bolts to ensure the Unistrut is adequately supported, hang the distribution board and fix onto the Unistrut
- Ensure the distribution board is level on the wall
- Populate the distribution board with outgoing devices/circuits, ensuring all are correctly fitted and fastened
- Fit full form blanks to any unused outgoing ways

- Label the incoming supply cables and file back any sharp edges where the supply enters the board
- Isolate associated services as required
- Terminate the cabling as per the manufacturer's specification and code of practice
- Complete all testing as per the requirements of BS7671 ensuring that all dead tests are carried out prior to energizing
- Label all new circuits and provide a schedule for circuits inside the board

Installing lighting

- Mount the lighting junction boxes
- Mount the lighting control boxes
- Run new cables to the specified locations using containment where provided
- Install the light fixtures according to the manufacturer's specifications and approved layout
- Install the emergency lighting according to the approved layout
- Label the distribution board and fittings accordingly

Testing and commissioning

- Complete all testing as per the codes of practice ensuring that all dead tests are carried out prior to energising
- Label all new circuits and provide a schedule for circuits inside the board
- Provide emergency lighting certificates according to codes of practice for building control approval

1.1.14 Plumbing

Removal of existing plumbing services

- Erect access equipment in accordance with the safe use of ladders guidance notes/erection of tower scaffolds
- Isolate the water supply at the source
- Remove the internal/external fixtures and fittings piece by piece ensuring there are no unsupported plumbing services which could fall from height
- Remove all items from site according to the site waste management plan

Internal pipework installation

- Pipework must be delivered to a safe, pre-determined secure location onsite
- Erect access equipment in accordance with the safe use of ladders guidance notes/erection of tower scaffolds
- Cut, bend and fit according to the approved layout
- Install pipework and tie to tray
- Install pipework to wall chasing
- Install pipework to wall surface using approved technical specifications
- Locate the fixture outlets according to the working drawing
- Organise and agree hot works to be with the client management before undertaking the work
- Refer to the risk assessment for the risks associated with hot works
- Insulate hot water pipes with the specified material

Underground pipework water supply installation

- Confirm the location and the extent of the pipe works with the site supervisor
- Prior entering the excavation the responsible person is to inspect the excavation and confirm the excavation is safe to enter
- Prior to entering the excavation, ensure suitable excavation protection is in place to support the excavation walls, a rescue plan is in place, there is a suitable means of emergency exit and a permit to work has been issued
- Mark pipelines in the ground according to the working drawing and cordon off the area
- Excavate trenches to the required depths as per the working drawings
- The excavation is being undertaken by others
- Prepare the base of the trench for laying the pipes, as per the technical specifications
- Lay the pipes on the prepared base and support them at adequate intervals
- Test the pipes for leaks under pressure in the presence of the client's representative
- Maintain a 'test certificate', duly signed by the representatives of the client and contractor
- Coat the pipes with the specified anti-corrosive treatment (if metal pipes are used)
- Provide encasement with sand/granular material, if specified
- The encasement is being undertaken by others

- Backfill the trenches in layers, including compaction
- The backfill is being undertaken by others

Underground sewerage & storm water pipework install

- Confirm the location and the extent of the pipe works with the site supervisor
- Prior entering the excavation the responsible person is to inspect the excavation and confirm the excavation is safe to enter
- Prior to entering the excavation, ensure suitable excavation protection is in place to support the excavation walls, a rescue plan is in place, there is a suitable means of emergency exit and a permit to work has been issued
- Mark pipelines in the ground according to the working drawing and cordon off the area
- Excavate trenches to the required depths as per the working drawings
- The excavation is being undertaken by others
- Prepare the base of the trench for laying the pipes, as per the technical specifications
- Lay the pipes on the prepared base according to the specified gradient and support them at adequate intervals
- Perform a hydraulic/smoke test and obtain certification from the client's representative
- Maintain a 'test certificate', duly signed by the representatives of the client and contractor
- Coat the pipes with the specified anti-corrosive treatment (if metal pipes are used)
- Provide encasement with concrete/sand/granular material, as specified
- The encasement is being undertaken by others
- Backfill the trenches in layers, including compaction
- The backfill is being undertaken by others

Installing fixtures and fittings

- Deliver the fixtures and fittings to the required areas following the manual handling method statement
- Flush new pipework to remove debris or blockages
- Fixtures and fittings will be installed in accordance with manufacturer instructions
- Fit the fixtures and fittings to their locations
- Fit the kitchen cabinetry and fittings
- Fit the bathroom cabinetry and fittings
- Fit the shower fittings
- Fit the water heaters
- Connect the fixtures and fittings to the power supply, following the risk assessment
- The fixtures and fittings are being connected to the power supply by others
- Connect the fixtures and fittings to the water supply
- Connect the fixtures and fittings to the waste
- Clean all joints and apply silicone/mastic to the specified areas

Testing and commissioning

- Test the pipes for leaks under pressure in the presence of the client's representative
- Perform hydraulic/smoke test and obtain certification from the client's representative
- Maintain a 'test certificate', duly signed by the representatives of the client and contractor
- Chlorinate the drinking water system

1.1.15 Gas & heating works

Purging of gas

- Implement and follow the risk assessment as a principle of safe working methods, together with using IGE/UP/1A
- Engineers are to read and understand the asbestos survey prior to starting work, to ensure the appliance worked on does not contain asbestos
- An engineer must confirm the pipework complies with the manufacturer's specification and industry standards
- An engineer must record the gas installation volumes
- Prior to removing any existing gas appliances and gas components, the gas appliance must first be isolated from the mains
- An engineer must ensure sufficient earthing supply is in place and isolate and disconnect all electrical connections to the unit after carrying out preliminary checks
- An engineer must ensure sufficient ventilation is in place

- The engineer must ensure the system is clear of debris
- The engineer must remove any existing gas appliances and gas components as required
- The engineer must determine if there is any damage or defects to the existing pipework or features by undertaking the necessary tests
- Results should be recorded and the property owner or client should be advised immediately before undertaking any further work
- Position a manometer at the inlet to the system with an engineer standing by, keeping an eye on pressure and ready for emergency shutdown
- Gas should be released from a purge point/vent stack and timed
- Halfway through the purge, take samples to test for gas concentration and abort the purge if gas/air concentration levels are not satisfied
- Recalculate and record calculations of the system
- Undertake nitrogen purging if the gas/air concentration levels are not satisfied
- Complete the purge, remove the equipment, undertake leak/gas detection and commission the system
- Provide a purge certificate

Removing existing gas fixtures and fittings

- Protect the client's property by placing a suitable dust sheet on the floor and place all tools and equipment on the sheet ensuring nearby people are aware of where the tools are laid
- Isolate the existing gas fixtures and fittings
- Ensure all pipework is evacuated/purged before undertaking works
- Remove all internal gas fixtures and fittings
- Remove external gas fixtures and fittings
- Remove all items from site according to the site waste management plan

Internal pipework installation

- Pipework must be delivered to a safe, pre-determined secure location onsite
- Erect access equipment in accordance with the safe use of ladders guidance notes/erection of tower scaffolds
- Cut, bend and fit the pipework according to the approved layout
- Install pipework tie to the tray
- Install pipework to the tray and anchor to the approved route
- Install pipework to the finished surface using approved technical specifications
- Locate the fixture outlets according to the working drawing
- Organise and agree hot works with the client management before undertaking the work
- Refer to the risk assessment for the risks associated with hot works

Formation of a base or enclosure for plant

- Exclusion zone to be created around the work area, to prevent unauthorised access and slips and trips
- Deliver formwork and associated materials to the pre-selected area for the new concrete base
- Build the necessary formwork, and lay steel reinforcement as instructed
- Mix concrete to engineer specifications e.g. Using a mini concrete mixer, mix the concrete as per the engineers specifications
- Pour concrete at least 100mm thick and cure according to the engineer's specification
- Prior to leaving the concrete to cure, the concrete should be levelled and worked using a float
- Lay pavers of at least 42mm to ground as a base
- Form a fire-protected enclosure around plant according to the specifications
- Fixtures and fittings will be installed in accordance with manufacturer instructions

Installation of fixtures and fittings

- Deliver the fixtures and fittings to the required areas following the manual handling method statement
- Check the appliance for clearances from surrounding units
- Check adequate stability, e.g. is there a stability bracket or is a chain fitted to support the fixture?
- Fit the fixtures and fittings to their locations
- Fit the gas central heating systems
- Fit the oil central heating systems
- Fit the cookers

- Fit the hot water heaters
- Connect the fixtures and fittings to the power supply following the risk assessment
- Fixtures and fittings are to be connected to the power supply by others
- Visually check all inlets and ignition components
- Check any flame supervision devices
- Connect the fixtures and fittings to the water supply
- Connect the fixtures and fittings to the gas supply
- Connect the fixtures and fittings to the oil supply
- Carry out a second tightness test as per gas safety regulations
- Operate the appliance, checking and adjusting the working pressure, flame supervision device, ignition components and flame picture according to the manufacturer's requirements
- Check ventilation requirements are met
- Carry out final operation checks

Testing and commissioning

- Lag pipework where necessary
- Test the pipes for leaks under pressure in the presence of the client's representative
- Perform a hydraulic/smoke test and obtain certification from the client's representative
- Perform a fault diagnosis, repeat if necessary
- Maintain a 'test certificate', duly signed by the representatives of the client
- Make good all holes and replace any removable surfaces back into their apertures
- Remove all redundant materials

1.1.16 Solar panel works

Site establishment

- The scaffold must be erected by a suitably trained and assessed as competent scaffolder
- Consult the survey report for the position of any external fixtures and fittings including ventilation flues that must not be disturbed
- The scaffold must be inspected by a competent person (CISRS) and a 7 day permit and hand over certificate issued. The works must not commence until this is done
- Operatives are to check the scaffold tag to ensure the scaffold is confirmed as being safe to access
- Operatives must ensure that the general public are segregated from the work area and the appropriate signage is sited. Safe access to the property must be maintained for the occupier
- Use of mechanical means is preferred method of moving materials e.g. an appropriate hoist or gin wheel. If unavailable, the scaffold must have a double platform to allow for the operatives to manually handle the panels (18-19kgs) onto the top platform. This is a three person operation with an operative situated on each level. An exclusion zone must be set up to ensure others cannot enter during lifting operations
- All 'safe working loads' (SWL) should not be exceeded including nylon lifting straps, lifting tackle and the landing platform. Operatives must visually inspect straps before use. All lifting apparatus is subject to a yearly inspection

Decommissioning of solar photovoltaic system

- If working from height, safe access will be provided to the roof. Erect scaffolding and suitable roof barriers if no safe access to roof is provided
- Once access is provided to safely access roof, solar panel decommissioning must be investigated by operatives trained in working from height
- The isolation of solar panels must be undertaken by a competent electrician
- The removal of bracketry and all other connections must be undertaken safely and by trained operatives
- Undertake and detail a lifting plan before using plant to remove solar panels from the roof, following the safe use of lifting equipment and the risk assessments
- Remove the decommissioned solar panels and lift onto lorries; secure and remove from site

Installing a solar photovoltaic system

- Raise the panels to roof level using a gin wheel attached to the scaffold
- All 'safe working loads' (SWL) should not be exceeded including nylon lifting straps, lifting tackle and the landing platform. Operatives must visually inspect straps before use. All lifting apparatus is subject to a yearly inspection

- Operatives need to take into consideration the wind when carrying out this task, as this may cause a sail effect when lifting panels. Assess the work based on weather conditions
- Fix roof fixing brackets compatible with the new tiles to the roof trusses and weather-proof them
- The rails to accommodate the panels can then be secured to the brackets. It is then that panels can be fixed to the rails, ensuring all panel fastenings are tight. Situate these in accordance with the installation diagrams
- Once all panels have been secured, install a suitably mechanically protected DC cable between panels and connected it to the inverter via the loft. Access this via a vented roof tile before entering the roof structure at the required location
- Ensure the PV combiner/junction box is not live when connecting the main DC cable otherwise there is a very high risk of an arc occurring. Plug connectors should not be isolated under current either as this may cause arcing
- Ensure to execute cable connections carefully due to arcing, only circuit breakers that have a proven DC switching capacity may be used
- Install a lockable DC isolator into the DC side of the grid-tie inverter along with an AC isolator on the AC side of the grid-tie inverter
- Feed the AC cable from the inverter to the consumer unit within the property via an MCB. If the inverter is not fitted within the consumer unit location a separate AC isolator is required there
- Locate the inverter as per the design of the PV system in the loft space via the loft hatch. The loft must have walk boards fitted prior to the lift in order to accommodate the siting of inverter
- Site the inverter in the designated position using a two person team utilising the kinetic lifting method
- The necessary NICEIC isolations need to be carried out before connecting the inverter to the isolators and grid in compliance with regulations
- Ensure to pay attention to the polarity of the cables and connectors when connecting them together
- The installation of the solar/data logger and pin fused spur can then be carried out. Ensure the system is safe, well insulated and earth protected
- The system can then be tested and commissioned
- Then remove the scaffold and tidy the site

1.1.17 Fire alarm systems

New fire alarm works

- Install a new conduit or tray for the fire alarm route in accordance with manufacturer instructions and/ or drawing annotations
- Install the new fire alarm cables to the specified route in accordance with manufacturer instructions and/ or drawing annotations
- Install the heat detector smoke heads in accordance with manufacturer instructions and/ or drawing annotations
- Install the smoke detector smoke heads in accordance with manufacturer instructions and/ or drawing annotations
- Install the beam detectors in accordance with manufacturer instructions and/ or drawing annotations
- Install the void detection heads in accordance with manufacturer instructions and/ or drawing annotations
- Check the continuity of the circuit

Commissioning a fire alarm system

- Fault check the fire alarm system
- Reactivate isolated circuits
- Configure the fire alarm panel to accept new devices
- Add new devices to the graphics system
- Test the new devices for correct operation
- Provide test certificates to the client
- Activate the system and leave in live state

1.1.18 Dry lining, plastering or tape jointing

Removal of existing dry lining

- Confirm with the client the location of the dry lining to be removed
- Drawings of the existing services are to be consulted and existing services identified
- All identified services are to be isolated from the mains prior to work commencing
- Where applicable a trained operative is to erect a safe working platform, with suitable edge protection including toe boards and guard rails. An exclusion zone is to be created around the work area (to prevent individuals being struck by

falling objects

- Cut the existing dry lining back to expose the structural metal work
- Plasterboard waste is to be stored on pallets and/or in a segregated skip
- Removal the metal structural work in a safe manner
- Waste structural steel to be placed in a designated bin, ensuring there are no protruding edges
- Lay the materials in a pre-designated safe area
- Bag all dry lining or place it in the designated bin
- Bag all structural steel or place it in the designated bin
- Remove all materials according to the site waste management procedures

Delivery of dry lining materials to site

- All dry lining materials must be delivered to site in accordance with the arrival and departure from site risk assessment
- All dry lining materials must be manually handled to working areas according to the manual handling method statement

Form plasterboard partitions

- Mark on the floor the new partition set out according to the drawing
- Fix the top and bottom track for the stud wall
- Measure and cut the studs, installing at 600mm centres
- Form the studding around the door frames, allowing for timber lining in the frames
- Allow for the services 1st fix
- Apply dry lining sheeting according to the client's specification

Mixing compounds

- Add the compounds to a bucket of clean water according to the supplier specifications
- In a well ventilated area mix the compounds by hand or by machine in a safe area
- Slowly mix the compounds by hand or by machine, ensuring that excessive amounts of dust do not enter the local atmosphere

Applying plaster/jointing compounds to surfaces

- Erect access equipment in accordance with the safe use of ladders/erection of tower scaffolds guidance notes
- Prepare the surfaces
- Apply multiple coats of the compound to the wall using beads and trims at corners/edges
- Local exhaust ventilation system to be set up to prevent dust particles from entering the local atmosphere
- Rub down the surface by hand or with a machine
- Apply a final coat to all areas
- Rub down and prepare the surface for decorations
- Dispose of waste material according to the site waste management plan

1.1.19 Floor and wall tiling

Surface preparation

- Thoroughly clean and Hoover the area to be undertaken and remove debris from the floor
- Use ply sheeting or similar to even out discrepant surface levels and check against a datum or level
- Check and survey site and lay out marking and setting
- Install an edge restraint to restrain lateral movement of the tiles
- Mix latex screed in a safe, predesignated area with the correct PPE
- Screed the floor using a latex screed with a trowel
- Cordon off the area until the supervisor agrees the screed is now safe to walk on

Ceramic or stone floor tile installation

- Cordon off the area preventing unauthorised access
- Distribute floor tiles to tiling area by trolley
- Unload the floor tiles to areas where the user can safely grab without twisting
- Cut the floor tiles on a manual cutter
- Cut the floor tiles on a mechanical cutter
- Lay the floor tiles according to the set out. Tapped with a mallet to ensure they are straight, level and the grout spaces

even

- Allow the tiles to set
- Work approved grout over the tiles, ensuring it is worked well into the joints and the excess wiped clean from tile surfaces
- Cordon off the area allowing the grout to cure for 48 hours

Ceramic or stone wall tile installation

- Cordon off the area, preventing unauthorised access
- Distribute wall tiles to the tiling area by trolley
- Unload the wall tiles to areas where the user can safely grab without excessive twisting
- Mix Portland and adhesive cement in the predesignated area
- Cut the wall tiles on a manual cutter
- Cut the wall tiles on a mechanical cutter
- Lay the wall tiles according to the set out. Tap with a mallet to ensure they are straight, level and the grout spaces even
- Allow the tiles to set
- Work approved grout over tiles, ensuring it is worked well into the joints and the excess wiped clean from tile surfaces

Sign off

- Review the tile surfaces for cracks or defects and replace as necessary
- Clean down all tile surfaces
- Get sign off from the client or principal contractor
- Remove all waste from site

1.1.20 Painting and decorating

Interior decorations

- Erect access equipment in accordance with the safe use of ladders/erection of tower scaffolds guidance notes
- Prepare the surfaces
- Apply primer or undercoat
- Rub down the surface
- Apply a second coat of paint

Interior decorations - paint spraying

- Prepare the surfaces
- Protect areas as needed to reduce paint overspray
- Ensure the areas are clear for work and well ventilated
- Isolate any live fire detection systems
- Wear protective clothing and breathing apparatus
- Spray interior walls/ceiling with an applicator

Exterior decorations

- Erect access equipment in accordance with the safe use of ladders/erection of tower scaffolds guidance notes
- Use exterior scaffolding erected by a competent scaffolder
- Strip, prepare and make good the surfaces
- Rub down the surface
- Apply primer or undercoat
- Apply a second coat of paint

1.1.21 Floor laying

Offloading materials/manual handling/storage

- Under no circumstances should operatives climb onto the delivery vehicle whilst there is no edge protection in place
- Delivery vehicles must have a tail lift or Moffett facility to assist with the offloading of materials, manual handling aids are to be utilised to assist with placing materials onto the tail lift
- Operatives must obey the traffic and pedestrian management plan when transporting materials to the designated site store room
- For significant loads which are unsuitable for unaided manual handling such as those over 20kg, manual handling aids

- such as pallet trucks, forklift trucks and/or carpet barrows will be used to facilitate manual handling
- Where the use of manual handling aids is inappropriate due to the environment, loads are to be broken down into smaller packages for transportation and/or loads shared between multiple operatives
- Use a banksman when the delivery vehicle is reversing
- Ensure that materials are stacked on a level surface and never stack higher than three times the minimum base width” add below, barriers are placed around the storage area

Applying sealer/damp-proof membrane

- The COSHH assessment and material safety data sheet will be briefed and signed as understood before work commences
- Operatives must wear suitable respiratory protective equipment
- Cordon off the area until the supervisor has agreed that the area is now safe to walk on
- Open both units by releasing the clip and removing the lid, and pour part B into part A. Do not attempt to mix the units in confined spaces. This should be done in open spaces (for example outside) in order to reduce the risk of inhaling the fumes
- Mix the contents to obtain uniformity in colour and consistency using a drill and whisk whilst avoiding splashing. Ensure all materials from the base and sides of the containers are mixed in thoroughly to ensure a uniform cure
- Do not mix more than one unit at any one time. A practical coverage of approximately 20m² - 24m² will be allowed for, therefore measure out this area prior to application to ensure the correct coverage
- Once the sealer is mixed, place the lids back onto the units and fix the clip into its original position. Apply the mixed compound by means of a 2mm x 5mm notched trowel
- While the sealant is still wet, flatten out the serration ridges with a long handled medium pile roller, initially pre-wetted in the sealer
- Replace or re-notch worn trowels to ensure that the correct thickness of sealer is maintained. Trowel and roll with care to prevent splashing
- Make sure any remaining material still in its original container has fully cured before removing units from the working area by hand to the designated waste point on site. Material is not considered hazardous when it is fully cured

Applying primer

- Operatives must wear a 3M Respirator 6300 during this operation
- Open both units and place the lids safely to one side and pour part B into part A. Do not attempt to mix units in confined spaces
- This should be done in open spaces (for example outside) in order to reduce the risk of inhaling the fumes
- Mix the contents to obtain uniformity in colour and consistency using a drill and whisk. Ensure all materials from the base and sides of the containers are mixed in thoroughly to ensure a uniform cure
- Mix with care to prevent splashing. Do not mix more than one unit at any one time
- Apply an even continuous coat, free of pinholes to the substrate using a medium pile roller, and roll with care to prevent splashing. Take care to prevent the formation of puddles
- Leave the coating to dry to a translucent film. Make sure any remaining material still in its original container has fully cured before removing units from the working area by hand to the designated waste point on site. Material is not considered hazardous when it is fully cured

Floor preparation and screeding

- The COSHH assessment and material safety data sheet will be briefed and signed as understood before work commences
- Thoroughly clean, and Hoover the area to be undertaken and remove debris from the floor
- Use ply sheeting or similar to even out discrepant surface levels and check against datum or level
- Check and survey site, layout marking and setting
- Operatives must wear suitable respiratory protective equipment with dust filter cartridges during this operation
- Into a clean bucket pour one unit of liquid and stir into it one unit of latex powder. The powder should be added at a steady rate, mixing briskly with a drill and whisk until a smooth creamy mixture is obtained
- Pour the mixed product onto the floor and float the product with a trowel at a thickness of 2-3mm
- Immediately after one mix has been poured and trowelled, pass a spiked roller consistently back and forth through the product to finish the application
- Once the latex is dry, lightly abrade using a 110v STR floor sander and 24grit sanding pad with added local exhaust ventilation system

- Vacuum all dust/debris from the floor and empty in site skips
- Remove units from the working area by hand to the designated waste point on site. Material is not considered hazardous when it is fully cured
- Cordon off the area until the supervisor has agreed that the screed is now safe to walk on

Fitting carpet/matting tiles

- Plan the installation carefully. Begin by drawing a chalk line down the centre of the area or from a doorway, find the centre point and draw a line at a right angle
- Lay one row of tiles along each leg or cross. If necessary, re-draw the chalk lines so there's at least half a tile border along each wall
- Using a pre-wetted pile roller sleeve, apply the F41 adhesive evenly over the whole area
- Let the adhesive dry (until it turns from white to clear) for 30 minutes or longer, depending on humidity and temperature
- Working outwards from the centre of the cross, lay the tiles in position, pressing firmly to ensure they stick properly to the surface
- When fitting tiles at the edge of the room, butt one tile against the skirting, and position the tile to be cut exactly on top of the one immediately behind it, overlapping the butted-up one
- Where this crosses, mark and cut the top tile, and butt the tiles firmly together but be careful not to compress them against each other

Fitting broadloom carpet

- Fit smooth edge carpet gripper to the perimeter of the area leaving a 5-7mm gap from the wall for carpet tuckdown
- Fit carpet underlay and trim neatly to carpet gripper. On wooden subfloors, hold the underlay in place with tack-hammer staples; on sand and cement subfloors use the spot tackifier adhesive method
- Place the carpet in the area and using a carpet stretcher, and stretch the carpet between opposite walls. Secure in place using carpet bolster, trim excess and tuck down at the perimeter leaving a neat edge against walls

Fitting stair carpet

- Fit a smooth edge carpet gripper at the junction between the tread and riser of the stairs leaving a 15-18mm gap at cruth of stair for carpet tuck down
- Fit the carpet underlay and trim neatly to the carpet gripper. On wooden subfloors, hold the underlay in place with tack-hammer staples; on sand and cement subfloors use the spot tackifier adhesive method
- Cut the carpet to the width of the stairs and roll inside out, and secure in place using a carpet bolster. Trim excess from the top and bottom of the flight and leave a neat edge

Fitting engineered wood strip

- Transport the materials to the working area with mechanical aids (pallet truck/barrow)
- Check and survey site, layout marking and setting
- Fit 3mm cellular foam underlay and trim neatly to edges
- Fit wood strip leaving a 10-12 mm expansion gap at the perimeter. Staggering headed joints as work progresses, cut closing boards using a jigsaw
- Remove any offcuts by hand to the designated waste point on site

Fitting laminate wood strip

- Transport the materials to the working area with mechanical aids (pallet truck/barrow)
- Fit 3mm cellular foam underlay and trim neatly to edges
- Fit laminate strip leaving a 10-12mm expansion gap at the perimeter. Staggering headed joints as work progresses, cut closing boards using a jigsaw or laminate guillotine
- Remove any offcuts by hand to the designated waste point on site

Handover

- Clear and remove rubbish from site
- Hoover and clean the carpet
- Perform the final handover with the client and sign off
- Lay protection to the carpet where requested

1.1.22 Carpet laying

Floor preparation

- Thoroughly clean and vacuum the area and remove debris from the floor
- Use ply sheeting or similar to even out discrepant surface levels and check against datum or level
- Check and survey the site, layout marking and setting
- Mix latex screed in a safe, predesignated area with the correct PPE
- Apply screed to the floor using a latex screed with a trowel
- Cordon off the area until the supervisor has agreed that the screed is now safe to walk on

Laying carpet

- Sweep the area clean
- Spread adhesive tackifier over the floor area
- Lay the carpet tiles
- Lay the underlay
- Lay the broadloom carpet, cut the edge using a craft knife
- Clear and remove rubbish from the site
- Vacuum and clean the carpet
- Lay protection to the carpet

1.1.23 Glazing

General

- Prior to any work, the properties asbestos register (management survey) should be checked and/or any presumed asbestos containing material sampled and checked. No work should disturb any asbestos material. All employees must have attended asbestos awareness training and know the procedures to follow if they discover any material that could be asbestos-containing
- Prior to the commencement of work, the sizes, type and condition of all windows and doorsets should be checked both against the survey sizes and types and against the actual aperture sizes
- The client/customer should be given adequate notice to remove any furniture, fixtures or fittings that may otherwise be damaged during the installation
- The installer is responsible for both the internal and external protection of the property during the installation work
- Floor coverings should be protected and care afforded to decorations and furnishings
- Reasonable steps should be taken to minimise any damage to adjacent reveals
- Wherever possible, the installer should install and seal the new windows and doorsets on the same day that the existing windows or doorsets are removed, to maintain the security and weather tightness of the building. If this is not possible, an alternative arrangement for security and weather tightness should be agreed in advance between the installer and client
- The existing windows and doorsets should be removed with care to avoid unnecessary damage to the building structure and its finishings and without permitting any subsidence of the superstructure during or after the installation procedure
- Any electrical or specialist items, such as television aerials or telephone wires, should be rerouted around the frame of the window. Where this is not feasible, then alternatives should be agreed with the customer. The appropriate service provider should be employed where necessary

Delivery of materials to site

- Materials must be unloaded in a safe and predesignated unloading area
- Removal of materials from the delivery vehicle to be undertaken according to the manual handling method statement
- Delivery and load out of materials must follow the risk assessments and manual handling method statement
- Store materials in a safe and secure manner according to the handling glass risk assessment

Installing door glazing

- Ensure the substructure is ready for supporting the weight of the glazed door
- Install the door frame
- Cut out and install the door pivot box under the floor
- Cut out and install the door pivot box above the ceiling
- Fit and install the glass door to the pivots or frame
- Clean down the glass

- Apply manifestation and clean

Installing window glazing

- Ensure the cutouts and structure are secure for the window frame install
- Install the glazing frames according to the frame specification
- Install the window components and beads
- Install the glazing and component to the window frame

Installation packers

- Installation packers should be used adjacent to fixing positions to prevent outer frame distortion during installation
- Installation packers should be resistant to compression, rot and corrosion
- Installation packers should span the full depth of the outer frame
- The fixings should be tightened so that the frame is held securely against the packers. Over-tightening can lead to distortion and should be avoided
- Where enhanced security is required, additional packers might be necessary adjacent to hinge and locking points

Window and door fixing

- For correct window and door fixing, each frame member should be fixed to the structure or to an adjacent frame in order to resist all likely imposed loads which could cause the frame to deflect
- These loads might be due to wind loads, operating loads, weight, accidental impact or attempted burglary
- Fixing methods are affected by the presence or absence of a wall cavity, the nature and condition of any cavity, the relative position of the frame and cavity, the design of the reveal, any requirements for fire resistance (timber frame) or the position of the plaster line and the need to minimise disturbance and damage to any interior decorations

Open cavities

- Any open cavities discovered between inner and outer skins of brick or blockwork should be closed with an insulating material
- Care should be taken to maintain the integrity of the DPC and adequate purchase for fixing screws should be ensured, if necessary with extended fixing lugs

Glazing

- All glazing should conform to the recommendations given in the relevant part of BS 6262 and in BS 8000-7. In addition, any glass or insulating glass unit manufacturer's instructions should be followed
- All insulating glass units should be examined for damage prior to installation and defective units should not be used
- Insulating glass units incorporating safety glass should be oriented with the safety glass on the appropriate side
- Insulating glass units incorporating safety glass should be oriented with the safety glass on the appropriate side
- Insulating glass units with low emissivity coatings should be oriented in accordance with the manufacturer's instructions. Failure to do so can render the coating less effective
- Many windows and doorsets are delivered ready-glazed. Alternatively, they can be supplied with glass units and pre-formed glazing gaskets to be applied on site in accordance with the manufacturer's instructions
- Some systems require butyl-based, polyethylene, PVC or acrylic glazing tapes. When used externally, these glazing tapes should be capped with silicone sealant
- Other systems use non-setting compounds, gun-grade solvent release sealants, one or two part curing sealants or two part rubberizing compounds
- In all cases the manufacturer's instructions should be followed
- Insulating glass units should be installed in accordance with BS 8000-7, requiring, where appropriate, the correct use of setting and location blocks, distance pieces, frame to glass and bead to glass gaskets, bead to frame air seals, corner sealing blocks, beads and bead end caps, and bedding and capping sealants

Finishing off and making good

- Debris or contaminants should be removed and any drainage paths should be cleared
- Internal reveals should be made good as agreed, ready to redecorate if necessary
- Any materials such as trims or sealant should not be applied on top of loose material
- Protective tapes should be removed as soon as practicable, as ageing of tapes can cause difficulties in removal. Refer to the manufacturer's guidance

- Sand and cement should not be used to fill the gap between the outer frame and the substrate except for backfill for steel windows, usually limited to windows in stone surrounds or interior fair-faced brick and concrete
- Where the replacement product has a smaller front to back dimension than the original, there might be a mastic and/or paint line visible on the substrate which should be removed as much as practicable or covered with a trim
- The method of, and responsibility for, repair to any render should be as agreed with the client/customer

Sealing

- The purpose of perimeter sealants is to repel water and prevent air leakage in the face of differential movement between the aperture and the window
- Suitable sealants exhibit and retain flexibility
- Sealants should be compatible with the frame, substrate and other materials with which it may come into contact
- The presence of old oil-based mastics and bituminous DPC's can adversely affect the behaviour or appearance of otherwise correctly specified and applied sealants through the migration of hydrocarbons to the surface of the new sealants. Consequent photo-oxidation of the migrant products can affect sealant performance and produce discoloration. This risk should be avoided by removal of unwanted mastic and by keeping sealant away from DPC's
- Perimeter joints should be sealed on both the outside and the inside, with a sealant appropriate to the frame surface, the substrate material, joint size and configuration, anticipated joint movement and anticipated exposure to the weather
- In situations where sealants rely upon atmospheric moisture to initiate curing, deep filling should be avoided
- The sealant should be applied against a firm backing e.g. foamed PE rod, so that it is forced against the sides of the joint during application
- To avoid failure in service, the sealant should not adhere to the backing because this would restrict the lateral movement of the joint. This can be achieved through the use of a closed-cell foam strip such as a polyethylene foam tube
- Wherever practicable, an insulating fill should be inserted or injected around the full perimeter of the frame, between the frame and the structural opening
- Any insulation should be sufficiently flexible that it does not interfere with any expansion and contraction of the frame

Finishing off installed hardware and fittings

- Oil or light grease should be applied to the mechanisms
- A thin film of light oil on friction stays and mechanisms will enhance their corrosion resistance
- Residential door hinges with plastics bushes require no lubrication. The low-friction bushes could be damaged by the application of mineral oil over the long term
- Vertical slider spring balances are pre-lubricated and should require no maintenance
- When using spring balances, take care to avoid any lubricant being applied or transferred to the spring balance chambers in the frame. Any such lubricant will impede the effectiveness of the pivot shoe locking system, causing the sash to move around when tilted inwards for cleaning
- Exercise caution when using solvent-based aerosol lubricants as these may cause damage to the frame material. If in doubt, further advice should be sought from the frame supplier
- Brass metal rapidly tarnishes when exposed to the atmosphere and requires regular polishing. To avoid this, solid brass furniture is usually supplied coated with a protective lacquer to keep it bright. However, if the lacquer becomes scratched or worn away then the underlying brass will naturally tarnish. Advice on removing and re-applying lacquer to brass furniture should be sought from the supplier

Cleaning PVC-U frames

- Frames should be washed using a solution of detergent in warm water
- Non-abrasive proprietary cleaners, suitable for PVC-U, can be used in accordance with the manufacturer's instructions
- In the event of unusual or stubborn marks and stains, advice should be sought from the window supplier
- Solvents, thinners, solvent-based cleaners and abrasive cleaners should not be used
- The sealant between a frame and the building can be cleaned in a similar manner to the frame, take care not to break the seal to the frame or substrate

Cleaning glass

- The cleaning of glass can be carried out using a solution of detergent in warm water
- Less heavily soiled glass surfaces can be cleaned using a soft cloth and proprietary glass cleaner, in accordance with the manufacturer's instructions
- Laminated, toughened, leaded or low-E glass, and units containing Georgian bars, can all be cleaned in a similar manner
- The glass used in double glazed units can be easily scratched especially by jewellery and metallic scrapers. It is therefore

recommended that hand jewellery is removed prior to cleaning and the use of such scrapers be avoided

- Care is required when cleaning leaded lights as excessive pressure can dislodge the lead from the glass surface
- Care should be taken not to damage the seals between the frame and the glass
- Externally exposed lead will oxidise - this is a natural phenomenon and does not indicate a fault with the material

Final inspection

- After installation, a final inspection should be carried out to ensure that the installation is fully in accordance with the surveyor's and manufacturer's instructions and that the products operate correctly
- The client/customer should be made aware of the method of operation, locking and unlocking and the fire egress
- Written operating and maintenance instructions should be provided
- Information on the ordering of spare keys should be provided
- It is good practice to have the client/customer sign off the installation after the inspection has been passed

1.1.24 Paving and ground surface works

Initial surface works

- Confirm there are no buried services before beginning work, review services and utilities drawings and CAT scan
- Set up traffic management
- Set up fencing or barriers for exclusion and security of work
- Remove all weeds and other unwanted organic matter, along with topsoil
- Excavate the ground as necessary and prepare the ground surface with any soft spots excavated
- Lay and compress sub-base material with a compactor

Laying blockwork paving

- Distribute the laying sand and rake out to level
- Compact the sand using a vibrating plate
- Lay out blocks safely and close to the working area
- Lay blockwork in a herringbone pattern
- Lay blockwork in a perpendicular/quilted pattern
- A mechanical block splitter is necessary when cutting blockwork pavers
- Compact blockwork pavers with a vibrating plate
- Sweep paving sand over the area then carry out another pass with the vibrating plate to ensure all voids are filled
- Clear and sweep all debris away

Completion and making good

- Clear the surface of all detritus, dregs, and bits of spilled or surplus bitmac
- Remove construction materials and plant
- Cover the haunching to edging kerbs with topsoil
- Remove traffic management and fencing

1.1.25 Landscaping

Delivery of materials

- All materials and plant must be located in a temporary and protected area onsite
- Delivery of hardcore
- Delivery of topsoil
- Delivery of plant
- Delivery of plants and fauna

Earth moving

- Move the designated soil by hand and barrow
- An exclusion zone to be created around the work area using barriers and suitable warning signs, if impractical, a traffic banksman is to ensure public safety and safe movement of vehicles
- Follow the risk assessment for using vehicles onsite at all times
- Move the designated earth using a mechanical digger
- Move the designated earth using a vehicle

- Distribute earth over the designated area
- Compact with whacker plates

Planting

- Handle plants according to the manual handling instructions
- Site plants in their designated areas
- Lay plants in position and restore earth over holes
- Water the plants
- Hand over to the client

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1.3 Training

All operatives are adequately trained to carry out required tasks.

Site Foreman is SSSTS approved.

Site Managers are SMSTS approved.

All site operatives hold current certification and have the following training:

- CSCS certification
- The Construction Industry Scaffolders Record Scheme (CISRS)
- Stepladder training
- Working at heights training
- Asbestos awareness training
- Abrasive wheels training
- Installing edge protection
- Mobile Elevating Work Platforms (MEWPs): IPAF
- Installing and wearing harness systems (including rescue procedures)
- ECS certification
- JIB trade cards
- Test engineers hold City and Guilds 2391 certification
- All operatives are apprenticeship served electrical engineers
- All operatives are apprenticeship served plumbing engineers

1.4 Legislation

- Health and Safety Work Act 1974
- The Management of Health and Safety at Work Regulations 1999, amendment 2006
- Workplace (Health, Safety and Welfare) Regulations 1992
- The Control of Asbestos Regulations 2012
- Provision and Use of Work Equipment Regulations (PUWER) 1998
- The Reportable Injuries Diseases & Dangerous Occurrence Regulations 2013 (RIDDOR)
- Control of Substances Hazardous to Health Regulations 2002
- The Work at Height Regulations 2005
- The Personal Protective Equipment at Work Regulations 1992, amendment 2002
- The Manual Handling Operations Regulations 1992
- The Construction (Design and Management) Regulations 2015
- The Provision and Use of Work Equipment Regulations 1998
- The Electricity at Work Regulations 1989
- The Gas Safety (Management) Regulations 1996
- The Pipelines Safety Regulations 1996
- New Roads and Street Works Act 1991
- Electricity Safety Quality and Continuity Regulations 2002
- The Road Vehicles (Construction and Use) Regulations 1986 SI 1986/1078
- Supply of Machinery (Safety) Regulations 1992
- Fire and Rescue Services Act 2004
- Pressure Equipment (Safety) Regulations 201
- The Ozone-Depleting Substances Regulations 2015
- The Hazardous Waste Regulations 2005
- The Pressure Systems Safety Regulations 2000
- Pressure Equipment Regulations 2016
- The Environmental Protection Act 1990
- Ozone Depleting Substances Regulations 2015
- Pressure Equipment Regulations 1999 (SI 1999/2001)
- The Management of Health and Safety at Work Regulations 2006
- The Personal Protective Equipment at Work Regulations 2002
- FF-Gas Regulation (EC) 517/2014
- Ozone Depleting Substances Regulation (EC) 2037/2000
- The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- The Building Regulations England and Wales 1991 Part N 'Glazing – materials and protection'

1.5 Method of access

- All operatives will be inducted by onsite supervisor.
- Access and egress routes will be detailed on site fire and emergency plan.
- Any unauthorised access will be identified and communicated.
- All operatives will maintain access and egress routes, and ensure that materials required for the task do not obstruct access to work areas and any debris caused by their operation will be removed.
- Waste will be kept to a minimum and removed from site each as agreed with client.
- Any problems with access & egress routes will be reported to the Site Supervisor.

1.6 Working from height

- When working at height, site operatives must ensure that the working area is cleared on a period basis to ensure that there is continually a clear and safe working area to prevent slips trips and falls.
- When using access equipment for working at height, operatives will make sure they check if the equipment is 'fit for purpose', i.e. if inspection tag is attached and in date.
- Working at height equipment should be inspected every 7days.
- If no tag is attached to access equipment, operatives will not use the equipment and report to supervisor.
- Any access equipment that need to be built will be done so my competent operatives who have industry accepted training certificate (i.e. PASMA)

1.7 Tools and equipment

- All equipment or tools brought on to premises will be of sound construction and will meet the statutory requirements applicable to these tools or equipment.
- Tools and equipment used on site will be inspected by competent staff on a regular basis to ensure they are fit for purpose.
- Electrical tools will be regularly PAT tested.
- Only competent operatives will use equipment that requires adequate training.
- Any unused tools will be kept locked in toolboxes.
- Hand tools
- Sawing tools
- Cutting tools
- Planing tools
- Shaping tools
- Drilling or boring tools
- Holding and clamping tools
- Step ladders/podium steps/access towers
- Power tools (battery or 110v)
- Stake driving tools
- Shovels
- Excavators
- Mixing tools and plant
- Barrows
- Pumps
- 3 phase 30hp floor saw
- Blade sizes @ 600mm & 800mm
- Hose pipe
- 3 phase leads
- 110v wet vacuum
- 110v leads
- Brokk 100 with hammer and bucket
- Insulated hand tools:
 - sawing tools
 - cutting tools
 - shaping tools
 - drilling or boring tools
 - holding and clamping tools
- Digital Volt/Ohm/Amp meter
- Pipe Bender & Cutter
- Welding / Arc tools
- Masonry power saw
- planing tools
- Step ladders/access towers
- Digital thermometer
- Refrigeration gauges
- Vacuum pump
- Recovery machine
- Pipe bender & cutter
- Digital volt/Ohm/Amp meter
- Insulated rubber mats and gloves
- Jig saw
- Cold cutter
- Cable jacks
- Lifter
- Pipe threading machine
- Welding / arc tools

- Purge hose
- Gas meter
- Smoke detector cover / tester
- Step ladders/hop ups/podium steps/access towers
- Mixing equipment or plant
- Table tile saw (110v)
- Mechanical tile cutter
- Trowel
- Paint spraying machine
- Battery Drill
- Trowels
- Rollers
- SDS Drill 110v
- Floor Sander 110v
- Mixing tools (battery or 110v)
- Welding gun (110v)
- Transformers
- Task lights
- Carpet knee kicker
- Suction devices
- Cutting knives
- Trolleys
- Body pads to assist with manual handling
- Silicone gun
- Warning signs or temporary manifestation
- Cleaning products
- Paving machine
- Chain saws
- Cutters
- Mowers
- Wacker plates
- Buckets
- Cloths
- Window cleaning tools
- Pressure washers
- Vacuum cleaners

Refer to risk assessment specific control measures for any tools & equipment.

Refer to risk assessment specific control measures for any tools & equipment.

1.8 Special permits

Any cutting of MDF may require a permit to work from site management, ensuring all cutting undertaken in a well ventilated area.

Permit to dig to be issued prior to breaking ground.

Working in confined spaces permit required before entering excavations.

- A hot works permit should be obtained from client before undertaking any hot works such as welding and will ensure that welding and flame cutting does not start until after the risks for that particular task are identified and measures to eliminate or control risk are in place.
- Fire extinguishers used for hot works will be checked to ensure they are in date and have not been used
- Hot works permit needs to be issued for the following operations: welding, blazing, soldering, grinding and cutting, thawing pipes, the use of open flames, blow-lamps, and torches, using bitumen and tar boilers, the use of hot air blowers and lead heaters.
- Permits issued for the day/task will be returned to site management team when the work/task is finished or at the end of the day
- Correct PPE will be worn when carrying out hot work
- The work area is to be inspected for one hour after hot works take place, the permit signed to confirm the areas is safe and for cancellation and the permit returned to the principle contractor for closure
- **Hot Works**
- Site operatives shall adhere to the principal contractors HWP requirements and fire watch policies
- The principal contractor will be the sole issuing authority for HWP
- The principal contractor will ensure all site operatives are aware of emergency procedures at site induction
- The principal contractor will make all site operatives aware of their basic requirements when undertaking Hot works which may include the following:
- The user must comply with safe procedures and manufacturers instructions whilst undertaking hot works
- Any areas where hot works are to be undertaken must ensure combustible materials, flammable liquids and gas cylinders are removed from immediate area
- Fire extinguishers placed in local area of proposed hot works
- Hot works area cordoned off and operatives told of immanent works
- The user must not use an open flame whilst wearing clothing soiled with grease or flammable liquids
- The user must not use open flame in an atmosphere containing flammable vapors, explosives, dust or in confined spaces such as tanks
- The user must not use open flame in conditions where there are strong winds
- The user must extinguish any open flame when not in use
- The user and site supervisor should ensure of adequate ventilation to area

A permit to work will be employed by the principal contractor or client before undertaking any works

Hot works permit may be required onsite and to be organised with site management.

Permit to work may be required to work in riser cupboards, isolations or working on live power, these and other permits to be organised with site management as needed.

A hot works permit or isolation request will be required on any live systems, before any works are to take place. Any permit if required is to be organised directly with site management / client.

Any cutting of tiles may require a hot works permit from client or principal contractor

Permit to work may be required to work on an sloped areas with plant or machinery

1.9 General waste handling

- A suitable route to transport waste must be considered prior to the work.
- Internal routes should be protected to prevent damage to the fabric and decoration of the building. Particular attention should be made to door frames and sharp changes of route direction.
- If external routes cross pedestrian footpaths an alternative route should be provided for the public. The waste route should be segregated using barrier fencing with suitable signage to direct the public to the alternative pathway and prevent unauthorised persons accessing the waste route.
- Ensure the correct PPE is worn when handling waste.
- Always use a mechanical means of moving waste whenever possible (e.g. wheel barrow). Use good manual handling techniques when mechanical assistance is not practical or safe.
- Always dispose of waste in accordance with principal contractor's environmental policy and waste management plan.
- Report any environmental waste accidents or spillages immediately to the principal contractor who will put into action the emergency waste containment plan and inform the relevant authorities. A spill kit will be carried on site all times.

1.10 Use of skips

- Waste is to be deposited into a skip.
- Barrier fencing should be positioned around the skip with 'keep out' signage attached.
- Skips will be covered and secured to reduce the risk of arson and theft.
- Skips should be positioned a minimum of 6m away from buildings or other objects to reduce the spread of fire and to satisfy the requirements of insurance.
- Skips should be positioned to allow easy access for the skip vehicles to drop off new skips and collect full skips.
- Always use a banksman when skip vehicles are reversing.
- Skips are to be emptied regularly to reduce the risk of arson and theft.
- No hazardous material is to be deposited into skips.
- Temporary ramps used to gain access to skips should be sufficiently wide to prevent falls. On large or high skips, ramps should include side fall protection.
- Never climb into a skip.

1.11 Hazardous waste

- Hazardous waste such as asbestos must be collected by an approved licensed contractor.
- Hazardous waste should not be put with non-hazardous waste or sent for landfill.
- Sharps waste should be placed in a yellow sharps container and the lid firmly closed during transit. Sharps should never be carried in the front of vehicles.
- Hazardous waste like COSHH items should be disposed in COSHH bins if available on site.
- Hazardous items disposal procedures will be followed as identified in COSHH assessments.
- Flammable liquids will be kept to a minimum a vented store separate from the COSHH store will be provided.
- Gas store will be in secure store fully vented and situated in a well-ventilated area preferably outside.
- All efforts will be made to substitute COSHH materials for less noxious water-based materials.
- Hazardous waste (such as radiated waste and asbestos) is to be segregated from all other waste, bagged and stored within an exclusion zone. Only trained operatives issued with a permit to work are to enter areas containing hazardous waste.
- Consignment notices to be received upon removal, retained and copies provided to the principle contractor.

1.12 Hazardous Substances



Health Hazard



Highly Flammable



Corrosive



Gas Under Pressure

1.13 Emergency procedures

- Copy of emergency procedures will be kept on Safety Notice Board.
- Any changes in emergency procedures will be communicated to site operatives.
- Refer to the names of Fire Marshals on site Safety Notice Board.

The client or principal contractor will ensure that the existing site emergency procedures are followed and that relevant information is given to operatives at time of induction or when changes are made to procedures.

The principal contractor is responsible for ensuring that all operatives under their control adhere to the site emergency procedures at all times.

RIDDOR requires deaths and injuries to be reported to HSE, the following injuries are reportable when they result from a work-related accident:

- The death of any person (Regulation 6)
- Specified Injuries to workers (Regulation 4)
- Injuries to workers which result in their incapacitation for more than 7 days (Regulation 4)
- Injuries to non-workers which result in them being taken directly to hospital for treatment, or specified injuries to non-workers which occur on hospital premises. (Regulation 5)

A report must be received within 10 days of the incident, and can be submitted from HSE's website

1.14 First aid facilities

Refer to the onsite safety notice board for all first aid information.

A first aid box with enough equipment to cope with the number of workers on site should be provided for by the client or principal contractor.

The client or principal contractor should nominate an appointed person to take care of first-aid arrangements.

- The details of the appointed first aider and location of first aid provisions will be briefed during the site induction.
- Before where it states “a first aid box with enough equipment to cope with the number of workers.....” add, “a first aid assessment to be completed to ensure suitable first aid provisions are available for the number of people and works taking place.”
- Refer to the nearest hospital on site Safety Notice Board.

The number of appointed first aiders shall be dependent on the number of employees:

- **< 5:** At least one appointed person.
- **5–50:** At least one first-aider trained in EFAW or FAW, depending on the type of injuries that may occur.
- **More than 50:** At least one first-aider trained in FAW for every 50 people employed.

1.15 Welfare requirements

Welfare arrangements are supplied by the client or principal contractor.

These should be in line with Schedule 2 of the Construction Design & Management Regulations 2015 (CDM). All sites are to have a minimum amount of welfare facilities available for workers, which include the following:

- Toilets with hand washing and drying provisions
- Washing facilities suitable for the work taking place
- Drinking water, hot and cold or warm water
- Changing rooms and lockers
- All welfare areas will have adequate shelter, heating, lighting, ventilation and be suitable cleaned
- Rest areas with tables and chairs
- Provisions for heating food and water

1.16 PPE Requirements



Safety Hats



Safety Boots



Hi Vis Vest



Safety Gloves



Hearing Protection



Dust Mask

1.17 Specific PPE requirements

- PPE requirements to be followed as per site rules.
- Any specific PPE requirements to be followed as instructed in Method Statements and Risk Assessments.

1.18 Manual handling

Manual handling aids will be used if available

The Manual Handling Operations Regulations (MHOR) 1992 establish a clear hierarchy of measures for dealing with risks from manual handling, these are:

- Avoid hazardous manual handling operations so far as is reasonably practicable.
- Assess any hazardous manual handling operations that cannot be avoided.
- Reduce the risk of injury so far as is reasonably practicable.
- The workforce will be trained to, observe safe lifting techniques, and safely handle loads.
- No one will be expected to lift on their own, materials weighing more than 25kg.
- Safe manual handling procedures should be followed at all times.

There are some basic principles that everyone should observe prior to carrying out a manual handling operation:

- Ensure that the object is light enough to lift, is stable and unlikely to shift or move.
- Heavy or awkward loads should be moved using a handling aid.
- Make sure the route is clear of obstructions.
- Make sure there is somewhere to put the load down wherever it is to be moved to.
- Stand as close to the load as possible, and spread your feet to shoulder width.
- Bend your knees and try and keep the back's natural, upright posture.
- Grasp the load firmly as close to the body as you can.
- Use the legs to lift the load in a smooth motion as this offers more leverage reducing the strain on your back.
- Carry the load close to the body with the elbows tucked into the body.
- Avoid twisting the body as much as possible by turning your feet to position yourself with the load.

When ever manual handling is to be undertaken, especially if it is an uncommon or high risk task, an assessment of four specific activities – Task, Individual, Load and Environment (easily remembered by the acronym TILE) needs to be implemented:

T - The Task

Does the activity involve twisting, stooping, bending, excessive travel, pushing, pulling or precise positioning of the load, sudden movement, inadequate rest or recovery periods, team handling or seated work?

I - The Individual

Does the individual require unusual strength or height for the activity, are they pregnant, disabled or suffering from a health problem. Is specialist knowledge or training required?

L - The Load

Is the load heavy, unwieldy, difficult to grasp, sharp, hot, cold, difficult to grip, are the contents likely to move or shift?

E- The Environment

Are there space constraints, uneven, slippery or unstable floors, variations in floor levels, extremely hot, cold or humid conditions, poor lighting, poor ventilation, gusty winds, clothing or Personal Protective Equipment that restricts movement?

1.19 Ladder permits

- Please complete a risk assessment to ensure that ladders / stepladders are the only viable option to complete the task (see working at height risk hierarchy for further information or consult your HSE representative / specialist)
- Ladder permits are under a full shift / daily control as maximum validity. Each new day requires a new permit to be completed
- All operatives using steps/ladders must receive a TBT on Step Ladder/Ladder Safety and be issued a copy of the HSE “Top Tips for Ladder and Ladder Safety” pocket guide.
- Steps/ladders must be of a professional grade standard (EN 131) and must be in good condition with an individual identification number
- Steps / ladders must show evidence of weekly inspection prior to using the equipment
- Steps/ladders are to be removed from work area and secured at end of the each day.

1.20 Permit to dig

- The Permit to Dig should be used as an operational document, prepared by a responsible person who is familiar with the work procedures, the hazards involved and the precautions to be taken.
- Description of work to be carried out must be stipulated. The original Permit to Dig should be held by the responsible person and a copy carried by the supervisor and the operative undertaking the work. The Permit to Dig should provide a brief description only and provide reference to the associated Safe System of Work detailing the correct sequence of work, the precise way in which the work is to be done and the duties of all persons involved.. The supervisor must acquaint all relevant persons under his control of the Permit to Dig and instruct them accordingly.
- Service drawings and CAT equipment must be acquired and used to show the designated work area and any known or suspected positions of services. No work outside of the defined work area shown on the drawing is permitted.
- The following excavation assessment is made prior to works commencing: Is the excavation deeper than or likely to be deeper than 1.2mtrs in depth; Is there adequate trench support on site to proceed if required; Is adequate edge protection available; Does anybody need to enter the excavation, are there adequate access arrangements; Is there an area for the safe storage of excavated material; are services suitably protected and supported where required.
- For any mechanical excavation, the following must be adhered to: No mechanical or powered equipment will be used within 1M of any known service; A Banksman will be in attendance to check for underground service indicators; If there is any doubt that the work cannot proceed safely, works must stop and the site Management team consulted.
- Permit issue / authorisation: This section must be signed by the responsible person preparing the confirming that, having implemented all necessary precautions, the work can proceed.
- Permit acceptance: The must also be signed by the supervisor responsible for, and the operative undertaking, the work to signify that they understand the system of work and the precautions to be taken.
- Permit completion: This part to be completed by the supervisor, stating the date and time when the work has been completed or suspended and left in a safe condition. To include a check to ensure that any residual holes or excavations are guarded and signed where appropriate.
- Permit cancellation: Finally, this section of the permit to be countersigned by the responsible person and filed for record purposes.

All work will be undertaken by qualified competent persons with experience of the type of work described above, and in all cases in full accordance with safety procedures specified in the company's health and safety Policy.

The work activities described within this method statement and all associated safety measures are not to be deviated from in any way. If, for any reason, the method statement cannot be implemented in full or should the described process be found inadequate for the purpose of providing a safe working environment, the affected activities must cease until such time as the method statement has been amended and re-approved as appropriate with any changes communicated by a toolbox talk to all employees involved before work recommences.

2.0 Risk assessment

Document created: 08 Apr 20
Document updated: 08 Apr 20
Prepared by: lee Macbeth

Saiao Build

Site address:
23 Gravel Hill
Emmer Green
Reading
Berkshire
RG4 8QN

Project reference: 23 Gravel Hill
Client reference: Saiao
Client: Mr and Mrs Saiao
Principal designer: Aspects Architectural Services
Principal contractor: Macbeth and Co Building Services
Start date and end date: 04/05/2020 to 27/11/2020

Example risk matrix

Likelihood

4

x

Severity

5

=

Risk/residual risk

20

			Likelihood				
			Very Unlikely	Unlikely	Possible	Likely	Very likely
			1	2	3	4	5
Severity	Negligible	1	1	2	3	4	5
	Minor	2	2	4	6	8	10
	Moderate	3	3	6	9	12	15
	Major	4	4	8	12	16	20
	Extreme	5	5	10	15	20	25

2.1 Working outside

2.1.1 Task: Working outside

Hazard	Risk	Control measures	RR
Heatstroke/ sunburn	4	In advance of significantly hot weather, operatives will receive a toolbox talk regarding the hazards, risks and control measures in place.	1
	x		x
	5	In warmer months, sun-protective clothing," such as long sleeves and full length trousers"	5
	=		=
	20	A minimum of SFP30 sun cream will be provided for all operatives, where required, operatives are expected to re-apply it every 2-3 hours when working outdoors.	5
		Operatives are to take regular breaks, rehydrating and resting in the shade where possible.	

Persons at risk: All site operatives

2.1.2 Task: Working outside

Hazard	Risk	Control measures	RR
Cold weather	4	In advance of significantly cold weather, operatives will receive a toolbox talk regarding the hazards, risks and control measures in place.	1
	x		x
	5	In colder months, suitable warm clothes will be worn, suitable heating will be arranged within the welfare areas.	5
	=		=
	20	Operatives are to take regular breaks, drinking warm drinks and resting in the warmth.	5

Persons at risk: All site operatives

2.2 Delivery of materials

2.2.1 Task: Unloading of materials

Hazard	Risk	Control measures	RR
Falls from height or a back strain/injury during unloading	5	The delivery driver is to avoid manual handling beyond their capability, which they believe may cause injury.	1
	x		x
	4	The delivery driver is to ensure mechanical lifting aids (telehandler, pallet truck etc.) are used to offload materials wherever possible.	4
	=		=
	20	The delivery driver is to ensure the correct loading of delivery vehicles prior to the vehicles leaving the materials yard and is to ensure the security of the load for transportation.	4
		Materials are to be palletted and wrapped wherever possible.	
		The delivery driver is to ensure that delivery vehicles are loaded in the correct order of the deliveries so as to eliminate the need for re-stacking materials after the first delivery has been made.	
		No one is to enter the back of the vehicle unless suitable edge protection is in place to prevent a fall from height. Where suitable edge protection is unavailable, a restraint lanyard will be used to restrict access to any leading edges.	

Persons at risk: User

2.2.2 Task: Unloading materials

Hazard	Risk	Control measures	RR
Injuries from falling loads or the mechanical failure of a tail lift whilst unloading	5	The delivery driver is to take care of the security of the load when opening the doors or curtains.	1
	x		x
	4	The delivery vehicle door or curtains are only to be opened from the ground and no entry is to be made to the vehicle whilst the doors or curtains are open.	4
	=		=
	20	A tail lift is only to be operated under the manufacturer's recommended weight limits.	4
		A tail lift is only to be operated by those trained and assessed as competent to do so.	
		A tail lift is to be inspected as per the manufacturer's recommendations.	
		If operatives are manually unloading materials, items are to be positioned in the area required with the curtains/doors closed.	
		A tail lift may be used as an interim platform for loading/unloading.	
		The delivery driver is to ensure the correct loading of delivery vehicles prior to the vehicles leaving the materials yard and is to ensure the security of the load for transportation.	

Persons at risk: User

2.3 Working in dusty environments

2.3.1 Task: Working around or causing construction dust

Hazard	Risk	Control measures	RR
Lung cancer, silicosis, chronic obstructive pulmonary disorder (COPD) or asthma caused by inhaling construction dust	4 x 5 = 20	When operating plant that causes dust, the operative is to refer to the specific risk assessment for this plant. Operatives are to consider using a different method of work altogether when operating tools that create dust. The right size building materials are to be used so that less cutting or preparation is needed. Where possible, operatives are to use a less powerful tool that creates less dust, brick breaking tools such as hammers and bolsters and clock breakers are to be used where possible instead of grinders and cutting tools Designated cutting stations will be allocated in areas which are isolated and well ventilated. When alternatives cannot be used and dust control not sufficient, water is to be used for the entire length of the task or/and local exhaust ventilation system (LEV) will be used. A FFP3 dust mask that is face-fit tested, tight goggles or a face mask is to be worn at all times. Operatives are to maintain a high level of housekeeping, using filter vacuums for debris, bagging and removing waste according to local regulations and the site management plan.	1 x 5 = 5
Persons at risk: All site operatives			

2.4 Working in noisy environments

2.4.1 Task: Working in a noisy environment or operating noisy plant

Hazard	Risk	Control measures	RR
Gradual or sudden noise exposure causing permanent hearing damage	4	All operatives are to be provided with information, instruction and training around working in noisy environments or operating noisy plant.	1
	x		x
	4	Alternative processes, equipment and/or working methods which would make the work quieter are to be investigated before undertaking any works.	4
	=		=
	16	The correct ear protection, such as ear plugs or defenders, is to be used in conjunction with any noisy plant or when operating near noisy areas. A suitable protection factor - sufficient to eliminate risks from noise but not so much protection that wearers become isolated - is to be selected for the task. Screens, barriers, enclosures and absorbent materials are to be considered in order to reduce the noise further. The workplace is to be designed in such a way as to create quiet workstations. Operatives are to only be in noisy areas for a limited time. Exposure to noisy works is not to exceed 87 decibels for daily or weekly personal noise exposure; and 140 decibels for peak sound pressure. Health surveillance is to be provided to monitor noise exposure over the upper exposure action values.	4

Persons at risk: All site operatives

Risk of injury or death due to interference with communications reducing people's awareness of their surroundings	3	Where warning sounds are used to avoid or alert to dangerous situations, the principal contractor shall make sounds clearly audible in the noisy environment.	1
	x		x
	5	Any systems of work where safety relies on verbal communications are to be avoided where the levels of noise or the wearing hearing protection could lead to misunderstandings.	5
	=		=
	15	Verbal communications should be replaced with visual and touch communication and/or other safe methods of communication implemented." When working around mobile machinery or traffic, operatives are to be extra careful of their surroundings and not select hearing protection devices that are totally isolating in nature.	5

Persons at risk: User

2.5 Working with or around combustible materials

2.5.1 Task: Working with or around combustible materials

Hazard	Risk	Control measures	RR
The materials used may form a fuel in the event of ignition, causing fires resulting in burns, smoke inhalation or possible death	3 x 5 = 15	Operatives are to follow the correct storage procedures, according to the manufacturers' instructions, where possible, combustible materials are to be covered in fire retardant sheeting. Flammable liquids and gasses and other hazardous substances are to be stored within a COSHH locker and positioned in an adequate location. Access to COSHH lockers will be restricted to those who have been trained and assessed as competent, suitable warning signs and information will be displayed on the exterior of the COSHH locker. Spill kits are to be available to soak up any spillages. Materials are only to be used for their intended purpose. Naked flames and smoking are to be strictly forbidden near combustible materials. Appropriate signage is to be erected or displayed identifying combustible materials on transport and in storage areas. An appropriate means of raising a fire alarm is to be allowed for. Suitable firefighting equipment is to be provided for tackling fires. A nominated fire coordinator and operative is to have been trained in the use of fire extinguishers. Fire detection systems and hot works permits are to be in place. Fire escape routes are to be clearly displayed onsite and all operatives are to be aware of their assembly point.	1 x 5 = 5
Persons at risk: All site operatives			

2.6 Working in confined spaces

2.6.1 Task: Working in confined spaces

Hazard	Risk	Control measures	RR
Serious injury or fatality sustained from working in confined spaces due to lack of oxygen, poisonous gas, fumes, vapour, dust or inherently hot conditions	4 x 5 = 20	Under the Confined Spaces Regulations 1997, the site supervisor should always try to avoid entry to confined spaces, e.g. by doing the work from outside. If entry to a confined space is unavoidable, a safe system of work is to be followed, as per the method statement, and the site supervisor is to implement a confined works permit before starting work. Prior to entering any confined space, a rescue plan is to be agreed, documented and briefed to all workers The permit to work is to include training/instructions and monitoring/auditing throughout the works, as well as specific emergency procedures. All site operatives involved are to be properly trained and instructed and the operation is to be manned by two operatives at all times, with a clear communication system also implemented. All mechanical and electrical equipment is to be isolated before the works begin. Operatives are to ensure that all internal spaces are clean before entry, removing any residue. Operatives are to ensure that the size of the entrance to the confined space allows workers wearing all the necessary equipment to climb in and out easily and that it provides ready access and egress in an emergency. The provision of additional ventilation is to be implemented if possible. Mechanical ventilation may be necessary to ensure an adequate supply of fresh air. It may be necessary to check the confined space is free from both toxic and flammable vapours and that the air is fit to breathe. Any testing is to be carried out by a competent person. The use of non-sparking tools, specially protected lighting and extra low voltage equipment (typically less than 25 V) and, where necessary, residual current devices may be required. The provision of breathing apparatus and rescue harnesses may be required. Emergency procedures are to be implemented as per the method statement in the event of failure.	1 x 5 = 5

Persons at risk: User

2.7 Preventing slips, trips and falls

2.7.1 Task: Movement at height or on raised platforms

Hazard	Risk	Control measures	RR
Severe or fatal injuries caused by slips, trips and falls at height	4	All raised platforms will be erected by a trained and competent individual	1
	x		x
	5	Prior to use, all raised platforms will be inspected and tagged to display that the platform is safe to access.	5
	=		=
	20	All operatives working at height will receive working at height training.	5
		All raised platforms will have suitable edge protection including double guard rails and toe boards.	
		Ladders where required will be suitable installed and tied with ladder hatches/gates fitted to prevent falls from height.	
		All operative are to ensure good housekeeping onsite and 'clean as you go' is to implemented across the site.	
		All items on raised platforms are to be placed in a designated and safe area away from thoroughfares and edges of platforms.	
		Raised platforms are to be protected by cappings or fenced off to prevent entry into any risk area.	
		The correct PPE is to be worn at heights to prevent falling from height caused by slips, trips or falls.	

Persons at risk: All site operatives

2.7.2 Task: Movement at ground level

Hazard	Risk	Control measures	RR
Severe strains, sprains and muscle breaks	4	All operatives are to be shown the correct area for safe storage of materials onsite before works begin.	1
	x		x
	3	A clear working area is to be created onsite and operatives are to ensure that dustsheets, mats and other materials cannot slip or slide underfoot.	3
	=		=
	12	Potential slip/trip hazards are to be managed and removed as they arise and site management is to be notified if assistance is required.	3
		Operatives are not to carry items that will hinder the carrier's clear view.	
		All rubbish is to be removed from the site at scheduled times, organised by the site supervisor and in line with the site waste management plan.	

Persons at risk: All site operatives

2.8 Arrival & departure from site

2.8.1 Task: Unloading equipment

Hazard	Risk	Control measures	RR
Electrical shock or fatal injuries sustained from contact with overhead cables	4	The prevailing site condition is to be checked and all deliveries are to be undertaken in a pre-determined safe area.	1
	x		x
	5	No vehicles are to be parked or unloaded in the vicinity of overhead lines.	5
	=		=
	20	If it is necessary for deliveries to be undertaken below overhead cables, the works and area are to be coordinated with either the local authority or the principal contractor. Sufficient protection is to be in place for workers and the public, together with ensuring safe working distances are achieved and goal posts are used where required.	5
Persons at risk: User			
Being crushed by a falling load, with potentially fatal injuries	5	Deliveries are to be taken in designated areas only. Other workers and the public are to be kept outside of the delivery area.	1
	x		x
	5	Any machinery used for unloading is to be operated by trained personnel only and is to carry a through examination certificate for the lifting equipment (re-certificated every 12 months) and accessories (re-certificated every 6 months).	5
	=		=
	25	There will be no walking/working beneath raised loads at any time. Unstable loads will be made safe prior to lifting At no point with the safe working load of the lifting equipment and accessories be exceeded Any items that could potentially be lifted by the wind are to be placed in designated anchor areas and/or weighted down. Ensure any equipment being used for unloading is not operated in overly windy conditions - operatives are to refer to the equipment or plant guidelines. Goods are to be placed on firm, level ground in designated areas. The height of the goods is to be kept to a minimum to prevent stack failure.	5
Persons at risk: All site operatives & public			
Muscle strains, sprains and injuries caused by lifting heavy loads	3	Where possible, manual handling will be avoided and manual handling aids used to facilitate manual handling.	1
	x		x
	3	Manual handling on stairs will be avoided, at no point will any loads be carried up ladders	3
	=		=
	9	The correct lifting techniques are to be used. All operatives are to be trained in the safe method of lifting - refer to manual handling section in the attached method statement. A two-man lift is to be enforced for reaching or carrying heavier items.	3

Operatives are to split loads to make them lighter and safer to handle.

Although there is no universal safe maximum, mechanical aids are to be used when loads exceed 25kg per person or as referenced in the method statement.

Operatives are to be aware of handling large or bulky items (e.g. plasterboard) in windy conditions.

Persons at risk: User

Falls from vehicles - drivers may suffer serious, possibly fatal, injuries if they fall from the cab or trailer of a vehicle

3
x

Loading and unloading is to be planned.

5
=

Working on the bed of the trailer is to be avoided.

15

Suitable access equipment is to be used to access the trailer unit and drivers are to be trained how to use it safely.

Drivers are to be trained in the safe system of work for sheeting loads, e.g. the safe use of PPE.

Fall arrest equipment is to be inspected by a competent person prior to use.

Drivers are to be instructed not to walk backwards on the trailer or to jump from the cab/trailer.

Fixed steps and grab bars are to be used to allow drivers to access the cab safely.

Drivers are to be reminded of the need for good housekeeping in the trailer and cab.

Retrofit foldable steps are to be used to improve access to the trailer bed.

Operatives are to consider using other forms of access equipment where appropriate, e.g. mobile elevating working platforms (MEWPS) or podium steps.

1
x

5
=

5

Persons at risk: All site operatives

2.8.2 Task: Leaving vehicle

Hazard	Risk	Control measures	RR
Being struck by moving vehicles	4 x	All operatives are to park in designated areas.	1 x
	4 =	Site rules and authorised routes, provided by the client or principal contractor, are to be followed.	4 =
		All operatives are to wear hi-visibility jackets when leaving a vehicle.	
	16	All operatives are to sign in onsite.	4
		All operatives are to receive a site induction.	
		Banksman are to be used when vehicles are reversing.	

Persons at risk: All site operatives

2.8.3 Task: Leaving or entering site

Hazard	Risk	Control measures	RR
Struck by moving vehicles	5	All operatives and site visitors are to ensure they sign in when entering.	1
	x		x
	4	Inductions are to be provided to all operatives and visitors before entering the worksite, individuals will be notified of the designated vehicle and pedestrian routes and site rules.	4
	=		=
	20	Physical barriers such as stop blocks will be utilised to protect the pedestrian walking routes.	4
		Where there is a shared working area between individuals and vehicles, vehicle movements will only take place under the control of a trained and assessed as competent traffic marshal	
		Operators/drivers are to adhere to the site speed limit at all times.	
		At no point will the operator exceed the safe working load of the plant/ vehicle.	
		All drivers and operators will be trained and assessed as competent for the equipment operated.	
		The correct PPE is to be worn at all times.	
		All operatives and visitors are to keep to pedestrian areas only.	
		The use of crossover points is to be incorporated into the site plan by the principal contractor.	
		All operatives are to be made aware of changes in the Site Traffic Management Plan as and when it is changed.	
		All operatives and site visitors are to ensure they sign out when exiting the site.	
		Operative and visitors are to watch out for other contractors leaving the area at the same time.	
Persons at risk: All site operatives & public			

2.9 Working around live electrical equipment

2.9.1 Task: Working close to or adjacent to electrical services

Hazard	Risk	Control measures	RR
Contact with live electrical equipment whilst undertaking work, causing serious or fatal injuries due to, incomplete installation, poor building maintenance or unfit safe system of work being employed	4 x	Ensure a safe system of work has been implemented with site supervisor including a permit to work if necessary	1 x
	5 =	Follow electrical isolations risk assessment where necessary before operatives or site occupants undertake their respective work	5 =
	20	Competent electrician to identify with site supervisor any live electrics and fit warning notices if live electrics cannot be made dead during works	5
		Site supervisor to control access of site operatives into areas of risk, employing a permit to work system where any risk of contact with live electricity is present	
		Ensure all workers are aware of any live electrics through inductions and regular tool box talks	
		Prevent direct contact by ensuring all insulation barriers/covers are fitted to any electrical boards, equipment etc. by a competent electrician	
		No works to be carried out directly on live equipment	

Persons at risk: All site operatives

2.9.2 Task: Working in areas near live electrical equipment

Hazard	Risk	Control measures	RR
Serious or fatal burns and injuries from electric shock	4 x	All operatives to be informed of any live electrical services and how to avoid injury during site induction	1 x
	5 =	Protect exposed services prior to commencing work	5 =
	20	Competent electrician to isolate as many live electrical circuits to area of concern as possible before commencing work	5
		Warning signs to be placed on all live equipment	
		No works to be carried out directly on live equipment	
		Services and utilities drawings are to be consulted to identify the existing services prior to works commencing.	

Persons at risk: All site operatives

2.10 Working in occupied areas

2.10.1 Task: Working in areas of high volume of movement

Hazard	Risk	Control measures	RR
Collisions or falls from high traffic areas	3	Work areas to be visibly cordoned off and alternative routes marked	1
	x	Traffic management plan to be implemented, detailing the designated vehicle and pedestrian routes.	x
	3		3
	=	Plant and vehicle movements will only be allowed under the direction of a traffic marshal	=
	9	Pedestrian routes to be protected by fixed barriers such as stop blocks	3

Persons at risk: All site operatives

2.11 Circular saw benches

2.11.1 Task: Operating circular saw benches

Hazard	Risk	Control measures	RR
Inadequate or missing guards causing amputations or entanglement Punctures	5	Prior to use, all operatives will receive suitable information, instruction and training on the machinery.	1
	x		x
	5	Machinery will have a declaration of conformity and a CE mark	5
	=	Machinery to be used as is set out within the manufactures instructions.	=
	25	Machines are to be periodically checked, maintained and tested.	5
		Operators, at to wear suitable cut resistant gloves at all times whilst operating machinery	
		Suitable eyewear to be worn	
		All operators to be trained in safe use of machinery, manufacturers instructions and HSE WIS16 publication	
		Suitable top guards and riving knives should be fitted to all circular saw benches. It is vital that these are properly adjusted for each job being carried out	
		Machines should be fitted with a braking device that brings the blade to rest within 10 seconds	
		Never try to clean a running blade: stop the saw, remove the blade and use a suitable scraper to remove the resin	
		A means of electrical isolation using a fused switch-disconnector on or adjustment to the machine, and that it is controlled by a starter incorporating overload protection	
		A conveniently positioned mushroom headed stop button or other suitable control device that can quickly stop the machine in an emergency	
		Fixed guards, or alternatively interlocked guards that enclose the drive mechanisms	
		It should be possible to lock the machine 'off' when not in use	
		There should be sufficient space around the saw bench so that the timber can be handled safely	
		The riving knife should be securely fixed below the surface of the table	
		A 'push stick' should be used to push short work pieces into the machine	
		Suitable eye protection should be worn, long hair should be tied back and protected from entanglement	
		Saw blades should be of the correct pattern, sharp and distortion free	

Persons at risk: User

Wood dust causing serious respiratory disease	5	Saw benches should be fitted with effective local exhaust ventilation both above and below the table to control wood dust	1
	x		x
	5		5
	=		=
	25	Suitable RPE, to be worn where dust cannot be effectively controlled	5

Persons at risk: All site operatives

2.11.2 Task: Workpiece support whilst operating circular saw

Hazard	Risk	Control measures	RR
Serious injury ,entanglement, amputation from not supporting workpiece effectively	5	Large workpieces should be supported using extension tables or roller supports at both the infeed and outfeed ends	1
	x		x
	5		5
	=		=
	25	The second operator should always remain at the outfeed end of the extension and should not reach forward towards the saw. Although the riving knife reduces the risk of contact, it cannot prevent it	5
		At no point should any operator place their hands within any unprotected area within a close distance to the cutting blade.	
		At no point should operatives attempt to cut inadequately supported materials.	

Persons at risk: User

2.12 Planner and thicknesser

2.12.1 Task: Operating planner and thicknesser

Hazard	Risk	Control measures	RR
'Kick back' towards the operator and entanglement	4	A means of electrical isolation using a fused switch-disconnector on or adjustment to the machine, and that it is controlled by a starter incorporating overload protection.	1
	x		x
	4	A conveniently positioned mushroom headed stop button or other suitable control device that can quickly stop the machine in an emergency.	4
	=		=
	16		4
		Fixed guards, or alternatively interlocked guards that enclose the drive mechanisms	
		The upper part of the machine, including the infeed and outfeed rollers, should be guarded to prevent accidental access to the cutter block and feed rollers	
		It should be possible to lock the machine 'off' when not in use	
		A 'push stick' should be used to push short work pieces into the machine	
Persons at risk: User			

2.13 Power operated cross-cut saws

2.13.1 Task: Operating cut saw

Hazard	Risk	Control measures	RR
Serious injuries sustained to eyes or body from contact with flying objects, bandsaw misuse or due to fault	4	Training provided on operation, breakdowns, blockages and other potential dangerous scenarios	1
	x		x
	4	Suitable eye protection to be worn at all times	4
	=	Provide long-handled tools and/or push-sticks to release short or twisted workpieces	=
	16	The machine is provided with a power isolator adjacent to the machine and controlled by a starter incorporating overload protection and no-volt release. The power isolator is capable of being locked "off" on all occasions when the machine is not in use, if a locking device is not incorporated in the machine itself	4
		Prevent (or restrict) access to the danger zone with appropriate guards	
		Provide a two-hand control device to start the saw blade stroke and workpiece clamping	
		Controls are fixed in a position where the operator cannot start the saw blade stroke and/or powered clamping while being able to reach into the danger zone	
		Depending on the type of machine being used, specific safeguarding will need to be considered for each device and should follow advice from HSE in WIS35 document	

Persons at risk: User

2.13.2 Task: Operating CNC machine

Hazard	Risk	Control measures	RR
Hearing damage sustained from the use of operating CNC machine	4		1
	x	Designated area for CNC machine to be used cleared of personnel or provided with hearing protection	x
	4	Hearing protection to be worn by user at all times	4
	=		=
	16		4

Persons at risk: All site operatives

Inhalation of dust causing respiration issues or serious disease	3		1
	x	All woodworking machines should be fitted with suitable dust extraction equipment to reduce the exposure to wood dust to a minimum	x
	5	Suitable RPE, to be worn where dust cannot be effectively controlled	5
	=		=
	15		5

Persons at risk: All site operatives

2.14 Using blow lamp or similar

2.14.1 Task: Using blow lamp or similar

Hazard	Risk	Control measures	RR
Serious injuries sustained from fire or explosions whilst using a blowlamp or similar for brazing/ bronze welding (oxy-acetylene & oxy-propane)	4	A hot work permit system should be implemented onsite by the principal contractor or client	1
	x		x
	5	Site operatives must comply with safe procedures and manufacturers instructions whilst undertaking hot works	5
	=		=
	20	Only suitably trained and competent personnel are permitted to carry out hot works	5
		User must ensure all combustible materials are removed, with flammable liquids and gas cylinders beyond the range of the blowtorch	
		When using a blowtorch on metal surfaces, combustible material in contact with the metal behind or adjacent to the work area should be removed before work commences	
		Keep a watch whilst work is in progress for signs of fire or smouldering in the immediate vicinity	
		Ensure a portable fire extinguisher is readily available wherever and whenever hot works are in progress	
		Always extinguish a blowtorch when not in use and never leave it burning unattended	
		Ensure adequate ventilation where gas burning appliances are in use	
		Ensure area is checked thoroughly at the end of the work period and signed off on hot works permit as being safe by site supervisor and user	

Persons at risk: All site operatives

Lung damage caused by inhalation of fumes (which may contain cadmium) and skin & eye damage from sealants	4	All substances required to perform plumbing activities are identified i.e., lead, solder, plumber flux etc. and the relevant COSHH Assessments and personal protective equipment is made available	1
	x		x
	4	Consider use of respiratory equipment in confined areas	4
	=		=
	16	Avoid skin contact with sealants and wash from skin as soon as possible	4
		All areas must be kept very well ventilated during sealant works and minimum requirement is to open all doors and windows	

Persons at risk: User

2.15 Mobile generator

2.15.1 Task: Positioning mobile generator

Hazard	Risk	Control measures	RR
Injuries sustained from slips, trips and falls or manual handling of mobile generator	4 x 3 = 12	Ensure the area around the generator is secure (exclude all movement) Operatives will receive suitable information instruction and training prior to manual handling Ensure competent person supervises or carries out all work Ensure generator is correctly sited and segregated from pedestrian walkway Ensure all cables leading from generator are safe Ensure area/route is free from obstruction before carrying out task Ensure all operatives are competent in manual handling techniques Liaise with other operatives and contractors on site Reduce handling by using mechanical means where practicable / two person lift Use protective gloves and foot protection when handling machinery Ensure to seek assistance when the load is beyond the capability of the operative, i.e. 'team handling' Consideration should be given to the size, surface texture or nature of the load, does the centre of gravity shift Ensure leads from generator do not create trip hazards	1 x 3 = 3

Persons at risk: All site operatives

2.15.2 Task: Operating or refueling mobile generator

Hazard	Risk	Control measures	RR
Injuries sustained from fire or fumes whilst operating or refuelling mobile generator	3 x 5 = 15	Exhaust to be checked at intervals and correctly sited to ensure good ventilation Generators will only be used in well ventilated areas, with adequate airflow, internal use will be avoided All operatives included will receive information and instruction regarding the location and correct use of the spill kit Suitable fire fighting equipment will be located at the refuelling point. Ensure to turn off generator before re-fuelling, and use funnel Ensure fuel for equipment is carried in an explosion proof and appropriate metal container which is secured in the transport vehicle Machine is to be fuelled away from the vehicle, visitors and members of the public Smoking is not permitted during refuelling and operation of this	1 x 5 = 5

equipment

Ensure fuel tank and cap is secure at all times

Caution shall be exercised to prevent overfilling and spillage, all spillages will be cleaned up immediately

Persons at risk: All site operatives

2.15.3 Task: Operating mobile generator

Hazard	Risk	Control measures	RR
Electrical shock whilst operating mobile generator	3	Ensure equipment is maintained and inspected before use	1
	x	Equipment to be operated by a competent person	x
	5	Ensure all cables leading from generator are safe, electrically tested and tagged	5
	=		=
	15		5

Persons at risk: All site operatives

2.16 Using nail guns

2.16.1 Task: Using nail guns

Hazard	Risk	Control measures	RR
Puncture wounds from contact with projectile	4 x 4 = 16	Operatives are to be instructed in the correct method of use, inspection and maintenance requirements The gun is NOT to be used in the close proximity of other persons The gun is to be unloaded at all times when not in use The gun is to be unloaded when ladders are being climbed The gun is to be kept locked up when not in use The workplace is to be kept clear and obstacle free to prevent trips Nail guns are only to be used in areas deemed safe to use by the site manager The gun is to be subject to a planned maintenance programme	1 x 4 = 4
Persons at risk: All site operatives			
Eye damage or loss of sight sustained from projectiles	4 x 5 = 20	Wear safety goggles to BS EN 166 B	1 x 5 = 5
Persons at risk: User			
Injury to bystander	4 x 4 = 16	Work area and any areas likely to be affected to be checked prior to works and any identified precautions taken Where required, barriers and warning signs are to be used to restrict access to the immediate vicinity	1 x 4 = 4
Persons at risk: All site operatives			
Fire / explosion / electrocution from paslode guns	4 x 4 = 16	Prior to use, all operatives will receive suitable information, instruction and training for the equipment used. Do not use paslode guns in flammable atmosphere or near combustible materials / substances Check utilities and services drawings and survey prior to work commencing ensuring there are no hidden services and/or utilities. etc Equipment to receive periodic testing and maintenance and carry an in date PAT test. Before use, equipment will be visually inspected for	1 x 4 = 4

damage and defects

Persons at risk: All site operatives

Ill-health effects from carbon
monoxide

3

x

3

=

9

Do not used in confined areas, ensure plenty of ventilation

1

x

3

=

3

Persons at risk: User

2.17 Using cartridge tools

2.17.1 Task: Using cartridge tools

Hazard	Risk	Control measures	RR
Injuries sustained from contact with cartridge projectiles	4 x 3 = 12	Only trained operatives in the safe use of cartridge tools may this tool Cartridge operated tools should NEVER be used in a careless manner A cartridge operated tool shall have a rigid, lockable box or case, provided with compartments, to contain the splinter guard; the operating and maintenance instructions and a pair of goggles Pins should not be driven through pre-drilled holes unless a special adapter is used which will ensure that the pin is guided right up to the instant of contact with the working surface When loading the tool there should be no need for more than light finger pressure to insert the cartridge. If more than that is necessary, the attempt to load should be abandoned and the tool returned for examination Cartridge operated tools should not be used in areas where there is flammable vapour or risk of dust explosion A tool should never be left unattended when loaded, and should only be loaded as the last operation immediately prior to firing	1 x 3 = 3

Persons at risk: User

2.17.2 Task: Use of cartridge tools

Hazard	Risk	Control measures	RR
Injuries from loss of balance whilst working at height with cartridge tools	3 x 3 = 9	General working from height shall follow the working from height risk assessment, ladders should not be used when using cartridge tools, instead a work should take place from a firm and stable position such as a podium or tower. Consider using fall arrest systems when necessary Where there is insufficient edge protection in place to prevent a fall from height, a fall arrest system should be used and a rescue plan agreed If using a mobile tower, scaffold should be securely tied to the structure Consider using fall arrest systems when necessary	1 x 3 = 3

Persons at risk: User

2.18 Plant lifting operations

2.18.1 Task: Plant lifting operations

Hazard	Risk	Control measures	RR
Serious injuries sustained from using unsafe or incorrect lifting equipment	4	Prior to works commencing, operators are to ensure a lifting plan is available and they have read and understand it	1
	x		x
	5	Lifting equipment will be selected for its suitability for the load lifted and the environment.	5
	=		=
	20	Only suitably trained and assessed as competent operators and banksmen will take part in lifting operations	5
		All lifting equipment is to have a current test certificate where valid	
		Be inspected prior to each and every use by the user	
		The safe working loads shall not be exceeded under any circumstances	
Persons at risk: All site operatives			
Injuries to unauthorised personnel gaining access to lifting area	4	All site operatives or public are not be allowed under a suspended load	1
	x		x
	4	Only use trained competent personnel for lifting duties and one man to control lifting operation	4
	=		=
	16	The use of a subcontracted work force should be minimised where possible to ensure efficient knowledge of safe method of working	4
		Areas shall be fenced off, signage applied to all lifting areas, and use banksman to warn any third parties	
		No unauthorised personnel shall be allowed into or near the lifting areas	
		All personnel involved in lifting operations to read and understand lifting plan with site supervisor	
Persons at risk: All site operatives & public			
Serious injuries sustained from uncontrolled falling of loads	4	Lifting Operations are to strictly conform to LOLER regulations 1998	1
	x		x
	4	As per the LOLER regulations, equipment will receive a thorough examination at least every 12 months, and the accessories at least every 6 months. Certificates of examination will be retained, and copies held on site.	4
	=		=
	16	Where people will be lifted, all equipment will receive a thorough examination at least every 6 months	4
Persons at risk: All site operatives			

2.19 Using tipper lorries and lorry loaders

2.19.1 Task: Operating or manoeuvring tipper lorries and lorry loaders

Hazard	Risk	Control measures	RR
Overturning of rear-tipping lorries during tipping operations	4	Refer to using vehicles onsite risk assessment for general control of risks associated with operating or manoeuvring vehicles	1
	x		x
	4	On unmade or uneven ground, tipper-trucks of Stability Category A or equivalent should be used	4
	=		=
	16	When tipping, always tip on firm level ground, never tip on a slope or during high winds	4
		Ensure the load is evenly distributed in the body of the truck	
		For articulated vehicles, ensure that the tractor is in line with the trailer body	
		Ensure a competent signaller is on hand to supervise tipping operations	
		Tip the load gradually so that it is discharged in a controlled manner	
		Watch out for loads sticking, which could cause instability during tipping	
		Lorry drivers should only stay in their cabs during loading operations if it is safe for them to do so	
Persons at risk: All site operatives			

2.20 Using hand tools

2.20.1 Task: Using portable hand tools

Hazard	Risk	Control measures	RR
Injuries to hands sustained from incorrect use of portable hand tools	4	Always choose the right tool for the job	1
	x	All operatives to be trained in the safe use of hand tools before starting works and have necessary experience to use each hand tool	x
	2	Tools used shall have inherent safety features where possible, such as retractable blades for knives	2
	=		=
	8	Keep cutting tools sharp, so that they cut true without needing to be forced	2
		Tools should be checked regularly for damage and any item to be found damaged or defective taken out of use immediately	
		Guards to be used where available and never removed or adjusted from the intended position	
		All portable hand tools are to be used as per the manufacturers instruction	

Persons at risk: User

2.20.2 Task: Using retractable knife

Hazard	Risk	Control measures	RR
Cuts to body or hands whilst using retractable knife	4	Retractable knife or chosen cutting device to be used that is suitable for the job, only utilise knives with molded plastic guard or retractable blade	1
	x	Knives should be checked before use and fitted with a sharp blade before beginning work	x
	3	Knife to be stored in a safely away when not in use	3
	=	Damaged or defective tools to be discarded using appropriate methods if they cannot be repaired	=
	12		3

Persons at risk: User

2.21 Using site dumpers

2.21.1 Task: Operating or manoeuvring site dumpers

Hazard	Risk	Control measures	RR
Overturning of dumpers or falling into holes causing serious or fatal injuries to site operatives	5	Refer to using vehicles onsite risk assessment for general controls relating to operating and manoeuvring vehicles	1
	x		x
	5	At no point will the safe working load be exceeded	5
	=		=
	25	Driver to be made aware during induction of the differences in performance of site dumpers when loaded and unloaded, particularly speed, braking, and stability on slopes	5
		Driver will not drive on gradients in excess of those safe for the dumper (see manufacturer's instructions)	
		Only competent people to drive site dumpers	
		Stop clocks and adequate barriers and signage will be positioned around holes excavations and leading edged	
		Engine will not be left running when driver not in the vehicle	
		Wheel stops to be provided at the edges of excavations, pits, spoil heaps etc to prevent site dumpers falling when tipping; with the blocks positioned a sufficient distance away from any unsupported edges and slopes to prevent the weight of the vehicle causing collapse	
		Site dumper's controls will not be operated unless seated on the driving seat	
		Passengers will not be taken in vehicle unless purpose-built seats are provided	
		When manoeuvring on sloping ground, driver will operate with extreme caution and according to their training	
		Site dumper will be driven at appropriate speeds according to site conditions	
		Loading of materials will be undertaken on flat ground with brakes applied, and loads will be distributed evenly	
		Operator will ensure he or she will not be on the dumper when it is being loaded	
		Any loose loads which risk causing danger will be securely fixed	
		The vehicle will be stopped, taken out of gear and parking break applied before tipping loads	
		Site dumper will not be driven around with the skip in the vertical discharge position	

Persons at risk: All site operatives

2.22 Using excavators

2.22.1 Task: Operating or manoeuvring excavators

Hazard	Risk	Control measures	RR
Serious or fatal injuries sustained from excavators slewing around, reversing and moving around site	3	Refer to using vehicles onsite risk assessment for general controls of hazards	1
	x		x
	5	Excavators should be equipped with adequate visibility aids to ensure drivers can see areas where people may be at risk from the operation of the machine	5
	=		=
	15	People should be kept away from the areas of excavator operation by the provision of suitable barriers	5
		A signaller should be provided and in a safe position to direct the excavator's operation and any pedestrian movements	
		A clearance of over 0.5 m needs to be maintained between any part of the machine, particularly the ballast weight, and the nearest obstruction	
Persons at risk: All site operatives			

2.23 Using vehicles onsite

2.23.1 Task: Operating or manoeuvring vehicles

Hazard	Risk	Control measures	RR
Strikes to a pedestrians or site operatives, in particular when reversing causing fatal or serious injuries	5	Drivers are to assess the work area prior to starting works, to identify services and structures	1
	x		x
	5	The principal contractor must ensure that pedestrians and vehicles are adequately separated by establishing pedestrian-only areas from which vehicles are completely excluded; safe designated pedestrian routes to work locations, vehicle-only areas, and safe vehicle routes around the site needs to be implemented across site	5
	=		=
	25		5
		Avoid reversing as far as possible, implement one-way systems around site and in loading and unloading areas, provide designated turning areas to eliminate the need for reversing	
		Design vehicle reversing areas which, allow adequate space for vehicles to manoeuvre safely, and are clearly signed to have physical stops or buffers to warn drivers that they have reached the limit of the safe reversing area	
		Fit CCTV, convex mirrors, Fresnel lens etc to overcome restrictions to visibility from the driver's seat, particularly at the sides and rear of vehicles	
		Fit radar proximity devices to vehicles to indicate to drivers when there are objects near the vehicle	
		Ensure everyone on site understands site rules on vehicle safety	
		Drivers and signallers need to be in constant communication during reversing operations	
		Signallers should not be put at risk from vehicle movements, eg by standing directly behind reversing vehicles	
		Ensure all vehicles on site are fitted with appropriate warning devices	
		Ensure reversing warning lights and alarms are in good working order and instruct workers to keep clear of moving vehicles	
		All workers to wear high visibility vests at all times	
Persons at risk: All site operatives & public			
Striking services and obstructions causing serious injury site operatives	4	Any unsuitable vehicles entering site will be turned away	1
	x		x
	4	Relocate services or re-route traffic away from any obstructions or services	4
	=		=
	16		4
		Physical protection to be provided to prevent striking any obstructions, eg goalposts and warning signs at overhead restrictions and services	
		Provide physical protection and warning signs in all situations which have significant danger potential if struck by vehicles like LPG or Fuel storage areas	

A clearance of over 0.5 m needs to be maintained between any part of the machine, particularly the ballast weight, and the nearest obstruction

Persons at risk: All site operatives

Serious or fatal injuries to site operatives or public from a restricted traffic route visibility

4

x

5

=

20

Design corners with clear sight lines or provide one-way traffic routes

Where vision of traffic routes is restricted, vehicle and plant movement will only take place under the direction of trained and assessed as competent banksman

Where appropriate, fit mirrors to areas of restricted vision to aid visibility on traffic routes. If not practicable utilise second person to escort you out of obstructed egress/access

Warning signs to be provided in any place where difficulty of vision expected from a vehicle

Follow safe systems of work, eg traffic control and speed restriction

1

x

5

=

5

Persons at risk: All site operatives & public

2.23.2 Task: Operating or manoeuvring vehicles on steep gradient or near edges

Hazard	Risk	Control measures	RR
Overturning of vehicle or fall into holes after breaching its edges	3	Ensure driver of vehicle is trained in safe operation and understands risks inherent with operating vehicles near edges or on gradients	1
	x		x
	5	Remove, or re-route traffic away from steep gradients and edges where possible	5
	=		=
	15	If possible, principal contractor to reduce gradients by levelling traffic routes	5
		Restrict vehicle use in hazardous areas to those vehicles designed to cope with the conditions	
		Install protection to edges, eg stop blocks and warning signs etc	

Persons at risk: All site operatives

2.23.3 Task: Parking or securing vehicles

Hazard	Risk	Control measures	RR
Serious or fatal injuries sustained from unintended vehicle movement	3	Only competent persons to drive vehicles	1
	x		x
	5	Provide site induction training about the site conditions and requirements when parking and operating vehicles	5
	=		=
	15	Only vehicles with appropriate braking systems should be selected for the work and environment onsite	5
		Ensure effective inspection and maintenance procedures are put in place for all vehicles and their servicing	
		Instruct drivers to test brakes before operating vehicles	
		All vehicles to be parked on flat ground whenever possible, eys are to be removed from unattended vehicles at all times	

Chock wheels of vehicles and trailers as necessary when parked on sloping ground

Persons at risk: All site operatives & public

2.24 Using abrasive wheels

2.24.1 Task: Use of abrasive wheels

Hazard	Risk	Control measures	RR
Serious injuries sustained to eyes or body from contact with flying objects or cutting wheels	5	Prior to use, all operatives will receive suitable information, instruction and training on the equipment used	1
	x		x
	3	Equipment will have a declaration of conformity and a CE mark	3
	=	Equipment to be used as is set out within the manufactures instructions	=
	15	Equipment is to be periodically checked, maintained and tested and visually inspected before use	3
		Only operatives with training and authorised to use abrasive wheel tools should undertake work	
		Correct PPE to be worn at all times when using abrasive wheels and or angle grinders, including safety goggles and gloves	
		Guard on abrasive wheel to be correctly adjusted to suit work position	
Persons at risk: User			
Damage to lungs through the inhalation of dust	4	Where possible, dust extraction to be used or abrasive wheel work to be undertaken in a well ventilated area	1
	x		x
	3	All operatives in the area to where correct PPE, masks may be required depending on the application	3
	=		=
	12	Refer to HSE Construction Information Sheets 36, 54 for further dust control information if necessary	3
Persons at risk: User			
Injuries sustained from the use of noisy equipment	5	Designated area for abrasive wheel cutting/grinding to be used where possible	1
	x		x
	3	When cutting in situ, area to be cleared of personnel or provided with hearing protection	3
	=		=
	15	Hearing protection to be worn by operative at all times	3
Persons at risk: All site operatives			
Injuries sustained from equipment vibration	4	Use in compliance with Control of Vibration at Work Regulations 2005	1
	x	Gloves to be worn at all times by operatives	x
	3	Working in short stints with breaks in-between to be applied	3
	=	See vibration risk assessment if sustained use of vibration equipment necessary	=
	12	Use will be monitored to ensure action limit values are not exceeded	3
		Work equipment used, duration of use and frequency is to be calculated as per the vibration risk assessment	

All operatives are to receive a briefing on the exposure action values and limit values for the equipment used

Tools and equipment will be selected for use, with reduction of hand arm vibration and whole body vibration in mind

Persons at risk: User

Possible fire from sparks emanating from abrasive cutting tools

4

x

3

=

12

A hot works permit shall be applied for as necessary, details of safe work to be provided by principal contractor

Site management will ensure operation of abrasive wheels will be isolated from flammable materials. If unavoidable, ensure flammable materials are covered with flame retardant cover

Suitable fire extinguisher for type of flammable materials to be supplied

Ensure any petrol operated machines do not leak

Switch off petrol operated machines before refuelling

1

x

3

=

3

Persons at risk: All site operatives

Entanglement of clothing or hair whilst using abrasive wheel

5

x

3

=

15

User not to wear loose clothing or jewellery

If operative has long hair, ensure hair is tied back

1

x

3

=

3

Persons at risk: User

2.24.2 Task: Replacing abrasive wheels

Hazard	Risk	Control measures	RR
Possible injuries sustained from replacing wheels	4	Only operative's trained in the safe use of abrasive wheels are to change or operate abrasive wheels	1
	x		x
	2	Abrasive wheels should be changed as per the manufacturers instructions	2
	=		=
	8	Only suitable blades as detailed within the manufacturers instructions should be used	2

Persons at risk: User

2.25 Using disc cutters

2.25.1 Task: Operating petrol disc cutters or cut off saws

Hazard	Risk	Control measures	RR
Inhalation of respirable crystalline silica (RCS) causing silicosis, chronic obstructive pulmonary disease (COPD) or lung cancer	5 x 5 = 25	Operate machinery in a well ventilated and cordoned off area Attach water hose to cut-off saw and use as suppression during cutting A dust mask with respirator with an assigned protection factor of 20 must be worn at all times	1 x 5 = 5
Persons at risk: User			
Serious injuries sustained from using faulty equipment	4 x 4 = 16	Only a trained operative may use a cut-off saw or disc cutter Where damage and/or defects are identified, equipment will be taken out of use Equipment is to be visually inspected prior to use checking for damage and defects Ensure machinery is inspected regular and tracked in a log Ensure cutting disks are replaced when worn by a trained operative	1 x 4 = 4
Persons at risk: User			
Serious injuries sustained to eyes or body from contact with flying objects or cutting wheels	4 x 3 = 12	Only operatives with training and authorised to use cut of saws should undertake work Guard on cutting wheel to be correctly adjusted to suit work position Equipment will only be used as described within the manufacturers instructions Suitable eye protection will be worn at all times	1 x 3 = 3
Persons at risk: User			
Hearing damage sustained from the use of cut off saws or disk cutters	5 x 3 = 15	Designated area for cutting to be used where possible When cutting in situ, area to be cleared of personnel or provided with hearing protection Hearing protection to be worn by user at all times	1 x 3 = 3
Persons at risk: User			
Injuries sustained from equipment vibration	4 x 3 =	Use in compliance with Control of Vibration at Work Regulations 2005 Gloves to be worn at all times by operatives Working in short stints with breaks in-between to be applied See vibration risk assessment if sustained use of vibration equipment	1 x 3 =

12	necessary	3
	Work equipment used, duration of use and frequency is to be calculated as per the vibration risk assessment	
	All operatives are to receive a briefing on the exposure action values and limit values for the equipment used.	
	Tools and equipment will be selected for use, with reduction of hand arm vibration and whole body vibration in mind.	

Persons at risk: User

Entanglement of clothing or hair whilst using abrasive wheel	3		1
	x	User not to wear loose clothing or jewellery	x
	4	If operative has long hair, ensure hair is tied back	4
	=		=
	12		4

Persons at risk: User

2.25.2 Task: Fuelling cut off saw or disc cutters (petrol two stroke oil)

Hazard	Risk	Control measures	RR
Serious injuries sustained from fire or explosion	4	Operatives are to read and understand the COSHH assessment	1
	x	A designated refuelling area is to be allocated, with suitable spill kits, storage areas and fire fighting provisions	x
	4	No smoking onsite unless in designated areas	4
	=		=
	16	Ensure fuelling site is shaded and away from any possible ignition source	4
		Keep fuel in correct sealed containers	
		When refuelling, ensure saw fuel cap is replaced securely	
		All operatives included will receive information and instruction regarding the location and correct use of the spill kit	

Persons at risk: User

2.26 Using vibrating machinery

2.26.1 Task: Using vibrating machinery

Hazard	Risk	Control measures	RR
Serious injuries like hand-arm vibration syndrome caused by the extended use of vibrating machinery	5 x	Where possible, try eliminate or reduce exposure to the lowest reasonably practicable level	1 x
	4 =	Consult supervisor and employees for extent of use with vibrating machinery	4 =
	20	All workers should have sufficient training and competency in using vibrating machinery	4
		A list of all vibrating equipment that could pose a risk should be collated in the 'tools and equipment' section of the method statement with info on each item including make, model, power, vibration risks, vibration information etc.	
		A list of all employees using equipment should be made and what jobs they will be undertaking with the vibration equipment in the 'description' section of the method statement	
		Make an assessment of how long employees hands are in contact with equipment while its vibrating, ask employees which equipment seems to have high vibration and note other sources of difficulty using equipment in the 'manual handling' section of the method statement	
		Any vibrating activities should be grouped according to whether they are high, medium or low risk	
		High risk (above ELV) activities could include using hammer action tools for more than about one hour per day or some rotary and other action tools for more than about four hours per day	
		Medium risk (above the EAV) activities could include hammer action tools for more than about 15 minutes per day or some rotary and other action tools for more than about one hour per day	
		Ensure employees are not exposed above the ELV If they are, take immediate action to prevent recurrence	
		Where exposure still remains above EAV implement health surveillance and make available job rotation to limit excessive exposure	
Persons at risk: User			
Whole body vibration	4 x	Chose work equipment with the appropriate design that can help to eliminate vibrations by looking at: the different vibration emissions, if the machine can be operated without stretching and twisting, ease of getting in and out of the machine with minimal climbing or jumping,	1 x
	4 =	access to manually loaded areas should be unimpeded by the machinery and involve minimal lifting, provide adequate break times, space and facilities for rest	4 =
	16	Choose suitable seats and tyres for the activity	4

Maintain vehicles including seat and suspension

Keep record of unmade roads and ground conditions on the site to know which machines will be suitable for the conditions to reduce shocks and jolts

Design sites to reduce need to transport materials

Provide suitable and sufficient training

Limit duration and magnitude with all reasonable steps to reduce vibration magnitude acknowledging that there is no PPE for whole body vibration

Ensure adequate rest periods

Protect employees from cold and damp

Reduce exposure below the exposure limit value all measures must be design to prevent this level of exposure- if exceeded measure must be implemented to reduce exposure and identify the reason

Persons at risk: User

2.27 Using portable power tools

2.27.1 Task: Using portable power tools

Hazard	Risk	Control measures	RR
Electrocution causing serious or fatal injuries whilst using portable power tools	3 x 5 = 15	Only 110v or battery operated equipment to be used Electric equipment to be kept dry and stored in toolbox to protect from damp and damage Visual inspection prior to use, plugs, leads, power supply (transformer), insulation, switches, RCD(if used), signs of burns, casing, loose parts Damaged or defective equipment including leads to be replaced immediately or fixed by competent person Electrical equipment must not to be tampered with, anything showing evidence of tampering must not be used until tested by a professional Electrical equipment to be PAT tested	1 x 5 = 5
Persons at risk: User			
Hearing loss to site operatives working near noisy power tools	3 x 2 = 6	All operatives trained in risks of noise exposure Suitable hearing protectors should be provided for operatives and any surrounding workers Use low-noise tooling where possible Operatives and the supervisors are to co-ordinate with other workers in the area to ensure that works taking place do not impact one another's safety, where unavoidable operatives working nearby noisy works will be provided with suitable hearing protection.	1 x 2 = 2
Persons at risk: All site operatives			
Serious cuts, injuries or amputations to body parts from the incorrect use of cutting tools	3 x 5 = 15	All operatives to be trained in the safe usage of power tools Always choose the right tool for the job Ensure all portable tools are set up correctly and securely fastened to worktops as per product specifications Ensure any portable tools that are set up, are in a designated safe area avoiding thoroughfare of other workers or vehicles All cutting tools to have safety guards incorporated, fastened securely and regularly checked and maintained Ensure no loose clothing is worn in the vicinity of cutting, and gloves are worn at all time	1 x 5 = 5
Persons at risk: User			

2.28 Using telehandlers

2.28.1 Task: Operating telehandler around people

Hazard	Risk	Control measures	RR
Telehandler chassis, boom or moving load striking people in area	4 x	Public excluded from secure site	1 x
	5 =	Segregate telehandler and personnel where possible	5 =
	20	Ensure telehandler has adequate vision aids such as rear-view mirrors, and cctv	5
		If necessary establish effective exclusion zone in conjunction with Principal Contractor	5
		All personnel to wear high visibility clothing	
		Ensure personnel are fully briefed on need to keep clear of load during lifting and telehandler during travelling	
		Ensure telehandler is made secure from unauthorised access or operation	
		Use of plant and lifting equipment near walking routes and where there is no clear segregation is to be directed by a trained and assessed as competent banksman at all times	
		Operators to adhere to the site speed limit at all times	
		At no point will the safe working load be exceeded	
Persons at risk: All site operatives		All operatives working in close proximity to plant and within the exclusion zone, to be briefed on the operators blind spots and safe working distances	
		Where required warning systems such as beacons and sirens to be fitted	

2.28.2 Task: Operating telehandler under stability concerns

Hazard	Risk	Control measures	RR
Ground unable to support telehandler	4 x	Establish presence of voids/underground services with Principal Contractor	1 x
	4 =	Assess the ground conditions and establish whether it is safe to operate in the area	4 =
	16	If required, Supervisor to check that mats supplied match those specified in Method Statement and are suitable to support/disperse the load	4
		Any voids identified should be adequately demarked with barriers and warning signs to exclude plant access until suitable control measures can be implemented	
		Stabilizer mats to be used as required	

Persons at risk: All site operatives

Telehandler overloaded	4		1
	x	Ensure weight of load is known and accurate	x
	5	Telehandler operator to have proof of competence	5
	=		=
	20		5

Persons at risk: All site operatives

Telehandler failure	4		1
	x	Ensure telehandler has been adequately maintained, pre-use checks carried out and has current report of thorough examination	x
	3		3
	=		=
	12		3

Persons at risk: All site operatives

2.28.3 Task: Movement of load

Hazard	Risk	Control measures	RR
Load or telehandler structure collides with overhead obstacles	4	Route to be planned and overhead obstacles marked with goal posts and signs	1
	x		x
	4	Boom to remain as low as practicable at all times	4
	=	Operator and banksman to be advised of any overhead risks	=
	16		4

Persons at risk: All site operatives

Load collides with other plant - cranes, excavators etc	4		1
	x	Establish effective exclusion zone	x
	5	Ensure that the safe systems of work for other plant in the vicinity address this hazard	5
	=		=
	20		5

Persons at risk: All site operatives

Telehandler boom comes within arcing distance of overhead lines	4		1
	x	Establish presence or otherwise of overhead lines. If present arrange for isolation or position telehandler boom/load outside minimum safe approach distance	x
	5		5
	=		=
	20		5

Persons at risk: All site operatives

Loose parts on load may fall	4		1
	x	Inspect load for lose objects prior to lift and secure/remove loose items	x
	5	All personnel to wear hard hats	5
	=		=
	20		5

Persons at risk: All site operatives

2.28.4 Task: Environmental conditions

Hazard	Risk	Control measures	RR
Telehandler becomes unstable when lifting loads with large wind area	4		1
	x	Wind speed to be checked with hand held anemometer by Supervisor before lift starts. Lift to be aborted if wind speed exceeds 15 mph	x
	5		5
	=		=
	20		5

Persons at risk: All site operatives

2.29 Working on stilts

2.29.1 Task: Working on stilts

Hazard	Risk	Control measures	RR
Tripping when in use	5	Floor areas must be completely clear.	1
	x	Provide seating area so operator can put on/off the stilts.	x
	4	If the work is taking place adjacent to any area where there is a falls risk, then edge protection will need to be raised to take account of the stilt height.	4
	=		=
	20	It is recommended that all other methods of working at height are explored first before using stilts	4
		Regular breaks are to be taken when working on stilts	

Persons at risk: User

2.30 Pitched roof ladder access

2.30.1 Task: Using ladders as working platform

Hazard	Risk	Control measures	RR
Incorrect ladder selection, use or failure of ladder causing serious injuries or death	4	Ladder to be must be EN131 and Class 1 Industrial Duty	1
	x	Ladder must be suitable for its intended use and environment	x
	5	Ladders must be set on a firm level base and either tied off or mechanically secured at base and along length	5
	=		=
	20	Ladders must be regularly inspected and maintained free from defects	5
		Correct erecting and lowering procedures are to be observed	
		Only one person to be on a ladder at one time	
		Materials / tools should be delivered to the work area by other means and not carried up ladders	
		When using a ladder ensure that you have three points of contact with the ladder at all times	
		Observe good lifting techniques when moving ladders	
Persons at risk: User			

2.31 Working by or over skylights

2.31.1 Task: Working by skylights

Hazard	Risk	Control measures	RR
Falls from height and falling materials causing serious injury or death	4	Client to provide lipped ply sheet covering over exposed skylight glass	1
	x	These are to moved along as works progress	x
	5	No works to be carried out in area around skylight unless sheets in place	5
	=		=
	20	Extreme care should be taken when installing and moving ply sheets so as to ensure no damage is done to the skylights	5
		Where adequate protection cannot be placed over the exposed skylight to prevent a fall from height, additional protection should be arranged	
		Either, guard rails and toe boards placed around the skylights, or suitable fall arrest systems used and rescue plan agreed	
Persons at risk: All site operatives			

2.32 Using ladders

2.32.1 Task: Using ladders

Hazard	Risk	Control measures	RR
Unsafe or defective ladder failure causing serious injuries to user	4 x 4 = 16	A 'pre-use' check will be undertaken by the user at the beginning of the working day; before a task, and after something has changed, e.g. a ladder has been dropped or moved from a dirty area to a clean area (check the state or condition of the feet) The user will check the stiles – make sure they are not bent or damaged, as the ladder could buckle or collapse The user will check the feet – if they are missing, worn or damaged the ladder could slip. Also check ladder feet when moving from soft/dirty ground (e.g. dug soil, loose sand/stone, a dirty workshop) to a smooth, solid surface (e.g. paving slabs), to make sure the foot material and not the dirt (e.g. soil, chippings or embedded stones) is making contact with the ground The user will check the rungs – if they are bent, worn, missing or loose the ladder could fail The user will check any locking mechanisms – if they are bent or the fixings are worn or damaged the ladder could collapse. Ensure any locking bars are engaged. The user will check the stepladder platform – if it is split or buckled the ladder could become unstable or collapse Check the steps or treads on stepladders – if they are contaminated they could be slippery; if the fixings are loose on steps, they could collapse If you spot any of the above defects, don't use the ladder and notify site supervisor	1 x 4 = 4
Persons at risk: User			
Falls from height whilst using ladder	4 x 5 = 20	All users are trained in the safe use of ladders and working at height Light tools and materials should be secured within a tool belt when climbing ladders User will not overreach whilst on ladder – user to make sure belt buckle (navel) stays within the stiles Three points of contact with the ladder must be maintained at all times User to make sure ladder is long enough or high enough for the task User to ensure ladder is not overloaded – consider workers' weight and the equipment or materials they are carrying before working at height User to make sure the ladder angle is at 75° – you should use the 1 in 4 rule (i.e. 1 unit out for every 4 units up) User to always grip the ladder and face the ladder rungs while climbing	1 x 5 = 5

or descending – user will never slide down the stiles

User should not move or extend ladders while standing on the rungs

User should not work off the top three rungs, and will ensure the ladder extends at least 1 m (three rungs) above area of working

User not to stand ladders on moveable objects, such as pallets, bricks, lift trucks, tower scaffolds, excavator buckets, vans, or mobile elevating work platforms

User to avoid holding items when climbing (consider using a tool belt)

User won't work within 6m horizontally of any overhead power line, unless it has been made dead or it is protected with insulation.

A non-conductive ladder (e.g. fibreglass or timber) will be used for any electrical work

User will maintain three points of contact when climbing (this means a hand and two feet) and wherever possible at the work position

Where user cannot maintain a handhold, other than for a brief period (e.g. to hold a nail while starting to knock it in, starting a screw etc), user will need to take other measures to prevent a fall or reduce the consequences if one happened

For a leaning ladder, user will secure it (e.g. by tying the ladder to prevent it from slipping either outwards or sideways) and have a strong upper resting point, i.e. do not rest a ladder against weak upper surfaces (e.g. glazing or plastic gutters) and user could also implement an effective stability device

Where ladders are operated by a single user, ladder will be fitted with relevant supports for one man use

Where a task takes longer than 30 minutes, an alternative means of access should will be considered

Persons at risk: User

2.33 Working on podium steps

2.33.1 Task: Using podium steps

Hazard	Risk	Control measures	RR
Injuries sustained from the improper use of podium steps	4 x 3 = 12	Podiums steps are only to be erected by operatives who have been trained and assessed as competent. Once safely erected, podiums are to be tagged, signed and dated to confirm it has been inspected and is safe to use Ensure the castors are pointing outwards and wheel brakes are locked" add "once moved into the required location Use the correct size podium for the job to avoid over-reaching Position the podium correctly to avoid over-reaching Only one operative to use the podium at one time Never stand on rails Always have both feet on the platform Make sure the platform is not overloaded Make sure safety gate is shut and locked when you are on the podium Ensure the castors are pointing outwards and wheel brakes are locked Take care not to bang your head on any overhead hazards, wear hard hat at all times Take care not to injure your eyes on any overhead hazards, wear goggles where hazards persist Keep the podium steps away from the overhead electric fittings and cables. It is made of metal which will conduct electricity down to the user Each day, before podiums are used the engineer will check the castors, guards, brakes, rungs, rails and platform to ensure that they are clean and safe Inspection records will be kept in site folder	1 x 3 = 3

Persons at risk: User

2.33.2 Task: Moving podium steps

Hazard	Risk	Control measures	RR
Injuries to person from improper movements of podium steps	4 x 4 = 16	Observe manufacturer's instructions for moving podium steps Keep hands, hair and loose clothing away from all moving parts Never lean ladders or other items against the podium steps - check no one else from site has leant items against your podium step before moving Never move a podium with materials or tools on it Never move a podium with a person on it	1 x 4 = 4

Ensure ground conditions are suitable – flat, level and firm ground (use spreader plates if necessary)

Ensure the castors are pointing outwards and wheel brakes are locked

Ensure that the podium steps are safe and secure if left unattended – even for a short time

Persons at risk: All site operatives

2.34 Preventing falling debris or tools from height

2.34.1 Task: Movement at height

Hazard	Risk	Control measures	RR
Serious or fatal injuries sustained from falling debris or tools	4	All site operatives to follow PPE requirements including wearing of hardhats on site	1
	x		x
	5	Safe working areas to be cordoned off when any works are undertaken overhead	5
	=		=
	20	All working platforms, scaffolding, mobile towers etc. to be erected by a competent person and to include toe boards to eliminate tools falling from height	5
		Any persons working from height to be trained in the safe use of tools, and to be made aware of the dangers from falling tools from above	
		Any areas where the public are exposed to possible falling debris or tools to be protected by the use of safety nets, hoarding and other failsafe structures	
		When working at height around high traffic areas, tools are to be harnessed to the user	
		At no point should materials be carried up ladders	

Persons at risk: All site operatives & public

2.35 Working from step ladders

2.35.1 Task: Working from step ladders

Hazard	Risk	Control measures	RR
Contact with over head cables causing possible fatal injury through electric shock	3 x 5 = 15	Check prevailing site condition Take care when erecting/positioning step ladders close to an services Do not erect step ladder in close proximity to a power cables - seek advice from supervisor before commencing with work	1 x 5 = 5
Persons at risk: User			
Head injuries caused by falling objects	5 x 3 = 15	Barrier off work area Take care when placing step ladder avoiding thorough fare of workers or public if possible When step ladder is secure, remove any dislodgeable items in close proximity Keep persons away from ladder and surrounding area when carrying out work	1 x 3 = 3
Persons at risk: All site operatives & public			

2.35.2 Task: Working from step-ladders

Hazard	Risk	Control measures	RR
Injuries sustained from the unsafe use of step-ladders	5 x 3 = 15	Operatives will ensure that step-ladders are only used for work that is short-term, of a light nature, that requires one hand to be used, and that can be done without stretching Inspect step-ladders before use to ensure that there are no obvious defects Do not paint stepladders, or use those that have been painted, painting can cover up defects Do not put step-ladders in front of doorways without taking appropriate precautions to prevent people bumping into them and never obstruct a fire exit with a ladder If the step-ladder is being erected in a public area or on a public path, then it is essential to provide proper protection for pedestrians or vehicles before the step-ladder is put up Wherever possible a step-ladder should be footed while someone climbs The step-ladder should be resting on a stable and secure surface The step-ladder should be placed away from overhead and wall mounted power cables	1 x 3 = 3

Step-ladders should never be supported on the bottom rung but always on the feet

Tools etc. should be carried in tool bags or belts rather than by hand, so that the step-ladder can be properly gripped during climbing

Do not lean from ladders or stepladders

Persons at risk: User

2.36 Working on flat roofs

2.36.1 Task: Working on flat roofs

Hazard	Risk	Control measures	RR
Serious or fatal injuries sustained from falling from edge or gaps in flat roof	5	Look at eliminating or substituting the need to work from height by implementing alternative tools or undertake works from below the roofing structure on a tower, scaffold or cherry picker	1
	x		x
	5	Any areas of height at risk of serious or fatal injury needs to have a safe system of work employed by the site supervisor and include a permit to work system	5
	=		=
	25	All site operatives working from height to be trained in the safe method of working from height by own company and inducted by site supervisor on safe system of work	5
		Edges and any openings will need protection during work and should be in place from start to finish of the work; aswell as strong enough to withstand people and materials falling against it	
		Site supervisor to ensure any permanent or temporary access equipment that's been installed has been checked and maintained by competent person before, whilst and after using equipment	
		Where the roof edge is unprotected and the use of full (temporary) edge protection is unsuitable, a restraint lanyard should be used to restrict access to within 2m of the rood edge	

Persons at risk: All site operatives

2.37 Working on sloping roofs

2.37.1 Task: Working on sloping roofs

Hazard	Risk	Control measures	RR
Serious injuries sustained from slipping down roof or losing footing over roof eaves	4	All people accessing the roof shall understand the dangers, even if only working on the roof for a short time	1
	x		x
	4	All operative's shall be trained in working from heights	4
	=	Gutters should not be used to support any ladder	=
	16	Full edge protection at eaves level will be required for work on sloping roofs that will be strong enough to withstand a person falling against it	4
		If the work requires access within 2 m of gable ends, edge protection will be needed there as well	
		Roof workers should not work directly on slates or tiles, as they do not provide a safe footing, particularly when they are wet	
		Use of roof ladders and proprietary staging to enable safe passage across a roof, and securely fixed by means of a ridge hook placed over the ridge, bearing on the opposite roof	
		Falls will be minimised with the use of a fall arrest system if deemed necessary	
		If falls arrest system implemented, emergency procedures shall be defined in method statement if accident occurs	
Persons at risk: User			
Serious or fatal injuries from falls through gaps or leading edges	5	If the work involves any likelihood of access within 2 m of any gaps they should be covered with a material which is fixed in position and sturdy enough to take the weight of a person	1
	x		x
	5	If this is not possible, edge protection will be provided around the gap or as a last resort install safety netting beneath the gap	5
	=		=
	25	Nets and birdcage scaffolds will be employed to eliminate falls from edges, netting shall be installed as close as possible beneath the roof surface; securely attached and will withstand a person falling onto them; and installed and maintained by competent personnel	5
		Where netting is not reasonably practicable, using work restraint safety harnesses with running line systems will be employed	
Persons at risk: All site operatives			

2.38 Working within lofts

2.38.1 Task: Working within lofts

Hazard	Risk	Control measures	RR
Injuries sustained from working in confined, or poorly accessed space	4 x	All works within lofts will consider the Confined Spaces Regulations 1997 and undertake necessary confine spaces risk assessment if deemed necessary	1 x
	3 =	Sage access to loft must be from a secure ladder	3 =
	12	Prior to working in confined spaces the work area will be assessed to ensure it is safe to enter, there is adequate means of escape to use in the event of an emergency and where required a rescue plan agreed	3
		When working in lofts, temporary boards shall be used between gaps and fall spaces	
		Adequate 110v temporary lighting must be provided by the contractor unless there is permanent lighting installed, back up torches should also be provided	
		If the loft has already been insulated the operative should be aware of the hazards of MMMF, correct PPE shall be worn at all times.	
		Any disturbance or removal of MMMF will require the operative to wear a disposable respirator	
		Where required the contractor will arrange for suitable air monitoring to take place	
Persons at risk: User			

2.39 Working on fixed scaffolds

2.39.1 Task: Working on fixed scaffolds

Hazard	Risk	Control measures	RR
Persons struck by falling objects from above whilst working on fixed scaffolding	5	Provide safe walkways around and beneath scaffold with no trip hazards	1
	x		x
	3	Protect against falling materials and debris such as by using fanning	3
	=	Erect warning signage, sheeting, high visibility tape on standards, ledgers and transoms etc	=
	15	Install lighting to any paths	3
		Prevent unauthorised access onto scaffold by removing ladder	
		Toe-boards, guard rails and where necessary brick guards and/or monarflex sheeting will be applied to the scaffold	

Persons at risk: All site operatives & public

Electrocution from contact with overhead cables	3	The principal contractor will identify any possible risks associated with nearby power lines and scaffolding	1
	x		x
	5	The principal contractor shall notify local authorities, request de-energisation or movement of cables	5
	=	Once working close to over head electrical cables agreed, local authority to ensure cabling is adequately insulated with sleeves	=
	15	Prior to works starting work below overhead line equipment a certificate of isolation should be issued and retained	5
		All operatives are to receive a toolbox talk on the dangers of overhead line equipment before starting work below overhead line equipment	

Persons at risk: All site operatives

2.39.2 Task: Erecting and working on fixed scaffolds

Hazard	Risk	Control measures	RR
Falls or serious injury from collapse of structure due to unsafe erection	5	The site supervisor will ensure that all scaffolding requirements are properly planned to meet working requirements prior to commencement of work	1
	x		x
	5	No person other than a competent scaffolder is permitted to alter, erect, dismantle or otherwise interfere with any scaffold erected on site	5
	=		=
	25	The site supervisor will ensure that scaffold is safe to use by obtaining a hand over certificate, form inspection report and appropriate signage is displayed on scaffold indicating it is safe to use for contractors	5
		The site supervisor will ensure that scaffold is further inspected at regular intervals not exceeding 7 days, after any substantial addition, dismantling or alteration and after any event likely to have affected its strength	

All inspections must be recorded add scaffold tags completed, signed and dated

At no point should the safe working load of the mobile scaffold tower be exceeded

Mobile towers to be inspected and scaffold tag added, signed and sated prior to use and no more than every 7 days thereafter by the competent person.

Persons at risk: All site operatives

2.40 Working on mobile scaffold

2.40.1 Task: Working on mobile scaffold

Hazard	Risk	Control measures	RR
Falls or serious injury from collapse of structure due to unsafe erection	4 x 5 = 20	The employer will ensure that all employees required to erect, alter or dismantle mobile scaffolds, receive the necessary training All mobile scaffolds shall be erected to manufacturers / suppliers instructions If a static tower is to be free standing, the height to base ratio, using shortest base dimensions, should be 4:1 for internal use 3.5:1 for external use If the tower is a mobile tower that is fitted with castors or wheels, the ratios are: Inside a building 3.5:1, Outside buildings 3:1. The minimum base dimensions can be increased, and stability improved by the use of out-riggers or stabilisers. The recommended maximum height for a free standing tower is 9.6m when mobile, and 12m when static Mobile scaffolds should not be used outside in adverse weather conditions, If they are to be left erected overnight then they will require the brakes to be applied on the wheels/castors and tied or secured to a permanent structure At all times, operatives are to remain within the guard rails of the mobile tower Operatives are never to stand on guard rails or overstretch out of the safe working area While climbing onto the scaffold tower, operatives are never to climb on the outside of the ladder Ladder hatches are to remain closed at all times when not in use	1 x 5 = 5
Persons at risk: User			
Falls or serious injury whilst working from mobile scaffold tower	4 x 4 = 16	All operatives should be trained in the safe use of mobile towers Mobile scaffolds must not be used or moved on sloping, uneven or obstructed surfaces Overhead obstructions should be noted i.e. ceiling heights, roof members, electrical light fittings etc. and in particular overhead electricity cables when using mobile scaffold Only the access ladder securely installed to mobile tower may be used to access various levels of mobile tower	1 x 4 = 4
Persons at risk: All site operatives			
Injuries sustained from falling objects	4 x 3	A suitable working platform must be provided which is closely boarded, incorporates guard rails and a toeboard on all four sides Mobile scaffolds should never be overloaded	1 x 3

=
12

Materials should be securely stacked and brick guards or netting used

=
3

Persons at risk: All site operatives

2.41 Moving pipes, rolls or irregular shaped or sized materials

2.41.1 Task: Moving pipes, rolls or irregular shaped or sized materials

Hazard	Risk	Control measures	RR
Injuries sustained from incorrect manual handling of pipes, rolls or irregular shape or sized materials	4 x 3 = 12	All hazardous manual handling operations should be avoided so far as is reasonably practicable The workforce will be trained to observe safe lifting techniques, and safely handle loads for materials of regular shape or size Any heavy or awkward loads should be moved using a handling aid If not using handling aids, consider reducing weight of load by breaking up materials to a more manageable size If breaking up into smaller loads consider frequency of bending and how this can be managed efficiently with site operatives Consider lifting in teams if load is already considered within acceptable limits It may be possible to roll drums of cable, this should be undertaken as a last resort if the above fails; the area should be cleared and movement of drum controlled by a team of operatives Before undertaking any manual handling operations, make sure the route is clear of obstructions and somewhere to put the load down wherever it is to be moved to All operatives to be wearing correct PPE for the job The operative should stand as close to the load as possible, with feet spread to shoulder width, bent knees and the back in a natural, upright posture The user should grasp the load firmly and as close to the body as possible The legs should be used to lift the load in a smooth motion, this offers more leverage reducing the strain on the user's back Carry the load close to the body with the elbows tucked into the body Avoid twisting the body as much as possible by turning your feet to position yourself with the load Individual fitness for task to be confirmed; HSE recommended lifting load guidance to be followed; avoid twisting / stopping where possible; toolbox talk on manual handling to be completed Reduce the risk of injury so far as is reasonably practicable	1 x 3 = 3
Persons at risk: All site operatives			

2.42 Moving of general materials of normal size and shape

2.42.1 Task: Moving of materials of a regular shape and size

Hazard	Risk	Control measures	RR
Injuries sustained from incorrect manual handling of materials with a regular shape and size	4 x 3 = 12	All hazardous manual handling operations should be avoided so far as is reasonably practicable The workforce will be trained to observe safe lifting techniques, and safely handle loads for materials of regular shape or size Any heavy or awkward loads should be moved using a handling aid If not using handling aids, consider reducing weight of load by breaking up materials to a more manageable size If breaking up into smaller loads consider frequency of bending and how this can be managed efficiently with site operatives Consider lifting in teams if load is already considered within acceptable limits Any of the regular shaped materials should be light, stable and unlikely to shift or move during lifting Before undertaking any manual handling operations, make sure the route is clear of obstructions and somewhere to put the load down wherever it is to be moved to All operatives to be wearing correct PPE for the job The operative should stand as close to the load as possible, with feet spread to shoulder width, bent knees and the back in a natural, upright posture The user should grasp the load firmly and as close to the body as possible The legs should be used to lift the load in a smooth motion, this offers more leverage reducing the strain on the user's back Carry the load close to the body with the elbows tucked into the body Avoid twisting the body as much as possible by turning your feet to position yourself with the load Individual fitness for task to be confirmed; HSE recommended lifting load guidance to be followed; avoid twisting / stopping where possible; toolbox talk on manual handling to be completed Reduce the risk of injury so far as is reasonably practicable	1 x 3 = 3
Persons at risk: User			

2.43 Movement of boxed materials

2.43.1 Task: Movement of general boxed materials

Hazard	Risk	Control measures	RR
Injuries sustained from incorrect manual handling of boxed materials	4 x	All hazardous manual handling operations should be avoided so far as is reasonably practicable	1 x
	3 =	The workforce will be trained to observe safe lifting techniques, and safely handle loads for materials of boxed materials	3 =
	12	Any heavy or awkward loads should be moved using a handling aid If not using handling aids, consider reducing weight of load by breaking up materials to a more manageable size If breaking up into smaller loads consider frequency of bending and how this can be managed efficiently with site operatives Consider lifting in teams if load is already considered within acceptable limits Any of the regular shaped materials should be light, stable and unlikely to shift or move during lifting Before undertaking any manual handling operations, make sure the route is clear of obstructions and somewhere to put the load down wherever it is to be moved to All operatives to be wearing correct PPE for the job The operative should stand as close to the load as possible, with feet spread to shoulder width, bent knees and the back in a natural, upright posture The user should grasp the load firmly and as close to the body as possible The legs should be used to lift the load in a smooth motion, this offers more leverage reducing the strain on the user's back Carry the load close to the body with the elbows tucked into the body Avoid twisting the body as much as possible by turning your feet to position yourself with the load Individual fitness for task to be confirmed; HSE recommended lifting load guidance to be followed; avoid twisting / stopping where possible; toolbox talk on manual handling to be completed Reduce the risk of injury so far as is reasonably practicable	3
Persons at risk: User			

2.44 Site surveying

2.44.1 Task: Accessing site for surveying

Hazard	Risk	Control measures	RR
Injury from falling	3	Access to buildings to have been pre-arranged before site work begins.	1
	x	The	x
	4	surveyor is to ascertain at the time of survey whether access is safe or unsafe.	4
	=		=
	12	All site operatives to attend site induction by principal contractor to be informed of safe working conditions onsite.	4
		Do not enter buildings/rooms where there is risk of falling debris or weak flooring.	
		Hazard awareness in place to look for slip / trip hazards; point of work risk assessment completed to ensure all hazards have been accounted for; preferably work to take place as a team / with your host to eliminate lone worker and be under the knowledge of someone who is familiar with site	

Persons at risk: User

2.44.2 Task: Working in inclement weather

Hazard	Risk	Control measures	RR
Exposure or hypothermia from working outside	3	Staff will wear hi-vis vests for the duration of the survey.	1
	x	In cold weather staff are to dress accordingly.	x
	4	Welfare areas to be used to warm up; hot drinks to be consumed in welfare areas	4
	=		=
	12		4

Persons at risk: User

2.45 Safe storage of fencing

2.45.1 Task: Safe storage of fencing materials

Hazard	Risk	Control measures	RR
Trips or striking from movement of fencing if not stored correctly	4	Safe working area to be designated for delivery of fencing materials	1
	x	The fence materials must be stored / stacked lying down or stored in a stillage	x
	4	Site materials to be stored in accordance with delivery / logistic plans on site	4
	=		=
	16	Fence materials must not be propped up against walls, lamp posts or trees	4
		Fence materials should be stored as close to the prospective fence line as possible to minimise risk of inadvertently coming into contact with members of the public	
Persons at risk: All site operatives & public			

2.46 General carpentry works

2.46.1 Task: General joinery works

Hazard	Risk	Control measures	RR
Workers risk serious and possibly fatal cut injuries following contact with moving parts of machinery, particularly saw blades	4 x 5 = 20	Refer to hand tool risk assessment for safe use of machinery All machines guarded according to manufacturers' instructions Machinery / blades to be inspected and replaced as required Machinery / blade to be inspected and maintained in accordance with manufacturer instructions Guards inspected regularly and maintained as necessary to ensure their good condition Workers have sufficient space at machines to work safely All workers trained in safe use of machines by a competent person	1 x 5 = 5
Persons at risk: User			
Lung, skin & eye damage caused by exposure to wood dust during sanding or cutting	4 x 4 = 16	Ensure workers never dry sweep wood dust, which will only spread the dust around Wood dust cleared up using a suitable vacuum cleaner, fitted with an appropriate filter Safety goggles worn when cutting wood Any cutting to be completed in a well ventilated area where possible Ensure first aid kit contains eye wash or an eye wash station is provided in close proximity to cutting area Clothing to cover the skin to be worn RPE to be worn with face fit testing in place; toolbox talk on dangers of wood dust to be completed; occupational health provider in place as required	1 x 4 = 4
Persons at risk: User			
User susceptible to back injury and long-term pain if regularly lifting or carrying heavy or awkward objects, also risk cuts when tooling, or splinters	4 x 3 = 12	Refer to method statement on safe lifting techniques Workbenches and machine tables set at a comfortable height to work from Appropriate gloves provided for handling tooling and protection from splinters Clothing to cover the skin to be worn Material secured on bench with vice to secure material and prevent from slipping	1 x 3 = 3
Persons at risk: User			
The inhaling of hazardous substances such as MDF	4	A lower risk alternative should be always used as a first option where	1

which may induce difficulties breathing or cause asthma to some

x

4

=

16

- one exists. Eg. use a 'no added formaldehyde' MDF board or low-emission MDF board if practicable to do so
- Ensure a designated cutting station/area is located onsite away from other workers in a well ventilated area
- Dust masks to be used at all times when cutting or sanding
- Use an effective dust extraction system whenever MDF is machined or sanded as a minimum requirement, all cutting to be undertaken in a well ventilated area
- Use vacuum cleaners with high performance filters (HEPA) to clean up MDF dust
- Ensure good housekeeping onsite, 'clean as you go' is implemented across the site
- RPE to be worn with face fit testing in place; toolbox talk on dangers of wood dust to be completed; occupational health provider in place as required

x

4

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4

Persons at risk: All site operatives

2.47 Avoiding buried services

2.47.1 Task: Carrying out work on or near underground services

Hazard	Risk	Control measures	RR
Severe or potentially fatal burns to the hands, face and body caused by the explosive effects of arcing current when a live cable is penetrated by a sharp object such as the point of a tool	5 x 5 = 25	Anyone planning to supervise or undertake work to have sufficient skills, knowledge and experience to do so safely Obtain service drawings from utilities companies or client with relevant information about the site Survey the site to identify the services and other underground structures, record the location of any services, relying on plans is not sufficient Review/assess the planned work to avoid disturbing services where possible, where not possible develop plans to minimise the risk of damage to those services in the work area Allow sufficient time and provide sufficient resource to do the work safely Avoid using hand-held power tools over the buried electrical cables, never assume depths; you may find cables at shallower depths than 450mm Final exposure of the service will be undertaken by horizontal digging and all tools will be insulated when digging near electric cables Once exposed, services should be supported where necessary and shouldn't be used as handholds or footholds for climbing out of excavations If cable is struck with a mechanical digger, drivers should be instructed to stay in the cab Emergency work still requires planning and assessment of the risks arising from the work, a precautionary approach must still be taken when breaking ground HSG 47 document to be followed; permit to work process to be followed at all times Cable avoidance testing (CAT+ Genny) to be available and used by competent persons to help locate services.	1 x 5 = 5

Persons at risk: User

Damage to gas pipes and connections causing leaks resulting in fire or explosion	5 x 5 = 25	Anyone planning to supervise or undertake work to have sufficient skills, knowledge and experience to do so safely Obtain the most recent service drawings from utilities companies or client with relevant information about the site Survey the site to identify the services and other underground structures, record the location of any services, relying on plans is not sufficient	1 x 5 = 5
--	---	--	--

Review/assess the planned work to avoid disturbing services where possible, where not possible develop plans to minimise the risk of damage to those services in the work area

Allow sufficient time and provide sufficient resource to do the work safely

Locate PE gas pipes by hand digging before mechanical excavation begins, do not use mechanical excavators within 500 mm of a gas pipe

Mechanical excavation around gas services should be carefully managed and planned and only used where hand tools are not sufficient

When mechanical excavation is undertaken, another person should assist the excavator driver, from a position where they can safely see into the excavation and warn the driver of any services or other obstacles

Final exposure of the service will be undertaken by horizontal digging and all tools will be insulated when digging near electric cables

Once exposed, services should be supported where necessary and shouldn't be used as handholds or footholds for climbing out of excavations

Where striking of gas supply has taken place, prohibit smoking, and extinguish all naked flames and other sources of ignition within at least 5 m of the leak, evacuate everyone from the immediate vicinity, warn the occupants to leave the building, and any adjoining building, inform the gas distribution network operator

Emergency work still requires planning and assessment of the risks arising from the work, a precautionary approach must still be taken when breaking ground

HSG 47 document to be followed; permit to work process to be followed at all times

Cable avoidance testing (CAT+ Genny) to be available and used by competent persons to help locate services

Persons at risk: All site operatives & public

Damage to surrounding property and financial losses when striking a water supply pipe

4
x
3
=
12

Anyone planning to supervise or undertake work to have sufficient skills, knowledge and experience to do so safely

Where work is carried out near water mains, obtain plans from the relevant water company and use a pipe locator

Plastic pipes will not be detectable by most detecting devices, therefore follow safe digging practices, using hand tools as far as practicable

At bends in mains, concrete thrust blocks may be used, under no circumstances will thrust blocks or the ground supporting them be disturbed

Support exposed water pipes, as necessary, and use the correct method of backfilling

If a water pipe or its wrapping is damaged, inform the relevant water company or water authority – and the owners of any other underground

1
x
3
=
3

services which may be affected – immediately.

Never make unauthorised repairs.

Spill kits to be used and to contact water company for emergency isolation

Persons at risk: User

2.47.2 Task: Contact with service

Hazard	Risk	Control measures	RR
Delay calling correct services if contacted, causing further damages to persons or property	5 x 5 = 25	For gas/electric - evacuate the trench and keep all persons well back, extinguish all flames and cigarettes, call the gas/electric company immediately, warn adjacent residents/occupiers if necessary, inform principal contractor and other necessary company supervisors lastly. Network operator to be informed immediately and only to fight fire if safe to do so. Site emergency plans to be followed at all times and arrangements tested for effectiveness In the event of injury or explosion, call the emergency services on 999. For water - contain the water in the trench if possible or divert to a safe point e.g. a gully. Inform the water company and inform principal contractor and other necessary company supervisors lastly.	1 x 5 = 5

Persons at risk: All site operatives & public

2.48 Excavation

2.48.1 Task: Excavation of soil

Hazard	Risk	Control measures	RR
Soil collapse from excavation, fatally trapping workers	5	Provide ground condition reports to all contractors making them aware of conditions	1
	x		x
	5	Provide information on underground structures, water courses and location of existing services to all contractors involved	5
	=		=
	25	Ensure safe access and egress provided to all excavation with secured ladder or steps extending allowing for 1 meter above excavation for safe egress/access	5
		Shore or step excavations, and ensure all materials are available onsite before works starts - don't assume ground will stand unsupported	
		Make sure any adjacent structures are not undermined – dig well away from them	
		Undertake battering of excavation sides to a safe angle of repose as needed - the angle of slope should be less than the natural angle of repose of the material being excavated, in wet ground a considerably flatter slope will be required	
		Support the excavation as work proceeds	
		Check the excavation each day before work starts and after any event that may affect its stability – eg a fall of material or poor weather. Keep records so people can be sure it is safe for work to continue	
		Excavations to be placed onto temporary works register and temporary works	
		Coordinator / Supervisor (TWC / TWS) to ensure safe systems of work are in place; sloping, benching, shoring and shielding (e.g. trench boxes) to be considered	

Persons at risk: User

2.48.2 Task: Movement of plant above excavation

Hazard	Risk	Control measures	RR
Surcharging of soil and collapse of excavations trapping or pulling in workers to excavation	4	Vehicle routes to be planned out before works are undertaken, and suitable barriers installed to maintain a safe distance from the excavation edge	1
	x		x
	5	Horizontal loads should be assessed by a competent person and the excavation supports that are installed should be designed to resist them	5
	=		=
	20	Spoil from excavations to be placed away from the side of an excavation by a distance of 1.5 m. Where the excavation depth exceeds 1.5m, this distance needs to equal the depth of the excavation	5
		If any boulders present in spoil, these are to be pushed into the spoil heap with the excavator bucket	

Temporary support shall be strengthened where buildings and other structures will create a surcharge, to take account of the additional loading to the ground

Additional temporary support is provided for work on sloping sites where there is surcharging on the uphill side of the excavation

Persons at risk: All site operatives

2.48.3 Task: Working within excavations

Hazard	Risk	Control measures	RR
Falling or dislodging material causing injuries to site staff	5	Head protection to be worn at all times	1
	x	Install edge protection including toeboards, projecting trench sheets or box sides to protect against falling materials	x
	3	Check excavations do not undermine scaffold footings, buried services or the foundations of nearby buildings or walls, and seek guidance from an engineer whether extra support for any nearby structures is needed	3
	=		=
	15	Do not park plant and vehicles close to the sides of excavations, these extra loadings can make the sides of excavations more likely to collapse 02 monitoring equipment to be used as required Full safe system of work to be implemented including confined spaces permit and emergency escape plan Team to be trained in confined space awareness / management	3

Persons at risk: All site operatives

Asphyxiation caused by contamination of oxygen	4	Excavations are considered a confined space, and risk assessment shall be undertaken when planning to work within excavations that test for low oxygen, toxic gases, and hazardous fumes	1
	x		x
	5	Any plant being used for or near excavations shall be positioned away to ensure diesel fumes do not flow down into excavation pit whilst workers are working within excavations	5
	=		=
	20		5

Persons at risk: All site operatives

2.48.4 Task: Movement above excavation

Hazard	Risk	Control measures	RR
Site staff falling into excavations suffering serious injuries	5	Edges of excavations to be protected with substantial barriers where people are liable to fall into them	1
	x	Guard rails and toe boards inserted into the ground immediately next to the supported excavation side; or	x
	4	fabricated guard rail assemblies that connect to the sides of the trench box; or	4
	=	the support system itself, e.g. using trench box extensions or trench sheets longer than the trench depth	=
	20		4

Persons at risk: All site operatives

2.49 Installing heras fencing

2.49.1 Task: Installing heras fencing

Hazard	Risk	Control measures	RR
Trips or striking injuries sustained from improper installation of heras fencing	3 x	Once heras fencing delivered, check panels for integrity, any damaged panels are to be quarantined and removed from site	1 x
	5 =	Fence footings then fencing panel will be installed in sequential order to avoid tripping over footings	5 =
	15	All fence panels to be lifted by way of two man lift or by mechanical means	5
		All operatives to wear correct PPE including gloves, steel cap boots and hard hats	
		Fencing line will be double clipped	
		Braces to be used over uneven ground or where fence panels are erected in long line	
		Gated sections will be installed to allow for regular access and egress into the working area	
		Heras fencing to be weighted where high winds have been evaluated.	

Persons at risk: All site operatives & public

2.50 Raising / lowering materials by Ginny wheel and rope

2.50.1 Task: Operating Ginny wheel and rope

Hazard	Risk	Control measures	RR
Overloading, or incorrect installation leading to falling materials or collapse causing serious injuries or fatality to those on ground level	4	Other mechanical means to be assessed prior to using a gin wheel (e.g. lifting beam / hoists)	1
	x	SG9:15 guidance to be utilised	x
	5	All operatives shall work under the full supervision of the lead scaffolder who shall supervise the rising and lowering of all materials	5
	=	All associated lifting equipment & support must be inspected prior to use by the lead scaffolder	=
	20		5
		The Ginny wheel shall thoroughly examined before use and suitably fixed at 2 points and restrained by using load bearing couplers only	
		Loading shall not exceed 50kg and no one to stand under any raised or lowered loads	
		The wheel should be secured in position with 2no. right angle couplers either side of the wheel, with the wheel positioned no further than 750mm away from the outside leg.	
		When the working platform is used for storage, toe boards and a fully board platform shall be installed progressively to prevent materials falling from any level	
		A safety zone will be created using suitable physical barriers with all the necessary warning signs to control and divert persons at risk away from the work area	
Persons at risk: All site operatives & public			

2.51 Erecting / dismantling scaffolding systems

2.51.1 Task: Raising or lowering scaffold materials

Hazard	Risk	Control measures	RR
Injuries sustained from strains, pulled muscles, impact injuries or rope burns whilst handling scaffold materials	4	When lifting/carrying scaffolding materials only carry recommended amounts	1
	x		x
	3	Tie materials correctly when using a gin wheel and rope, if passing hand to hand, ensure receiver has the material in grasp before releasing	3
	=		=
	12	Wear correct PPE at all times	3
		Only competent operatives to erect scaffolding and will use correct manual handling techniques	
		Check gin wheel and rope in good order, exclusion zone in place	
		All equipment to be regularly inspected and serviced by a competent person	

Persons at risk: All site operatives & public

2.51.2 Task: Installation of ties, ring bolts, anchors etc

Hazard	Risk	Control measures	RR
Serious injuries sustained to from collapse of structure	3	Test minimum of 3 anchors and at least 5% of total job	1
	x		x
	5	Ties/anchors & physical to be fixed/removed as works progress	5
	=	In- house company testing regime to be implemented at all times	=
	15	TG4:11 (proof test) requirements to be followed	5
		Failed equipment to be removed immediately from service; good practice NASC guidance to be followed at all times	

Persons at risk: All site operatives & public

2.51.3 Task: Erecting or dismantling either tube and fitting or system scaffolding from height

Hazard	Risk	Control measures	RR
Serious or fatal injuries to operatives from height whilst erecting or dismantling scaffolding	5	Safe system of work in place and briefing given to operatives	1
	x		x
	5	Use only trained, competent and skilled drivers/operatives	5
	=	Correct PPE to be worn at all times including fall arrest systems	=
	25	Install exclusion zone below the work area	5
		Keep scaffold materials clear of buildings when lifting	
		Progressively position and fix ladders	
		All work to be carried out within the SG4:10 NASC Guidance	
		Erect ties as work proceeds	
		Cease work if adverse weather prevails	
		Close supervision of work force	

Persons at risk: User

2.51.4 Task: Rescue of someone who's had a fall when harness is attached to anchor point

Hazard	Risk	Control measures	RR
Suspension trauma and potential injury to those carrying out the rescue	5 x	Fall prevention must be considered in the first instance, install span-set running lines, inertia blocks and protection decks	2 x
	4 =	It is important that a rescue plan is in place and understood by the scaffold operatives before work commences	4 =
	20	See specific rescue plan supplied by site supervisor	8

Persons at risk: User

2.51.5 Task: Erecting or dismantling haki roofing system from height

Hazard	Risk	Control measures	RR
Falls of men and materials	4 x	Pre-dismantle checks to be undertaken, ties, boards, guard rails, and ensure scaffold is cleared of debris by user/main contractor	1 x
	4 =	Follow haki roof system user guide when erecting/dismantling	4 =
	16	Install exclusion zone below the work area	4
		Install span set running lines and retractable inertia blocks to Haki system temporary roof	

Persons at risk: All site operatives

2.51.6 Task: Incomplete platforms

Hazard	Risk	Control measures	RR
Fall of men and materials causing serious or fatal injuries from incomplete platforms	5 x	Installation of hard barriers and relevant warning signage clearly displayed, to prevent access	1 x
	5 =	Fixed barriers should be used where possible	5 =
	25	Mobile man safe or use of eyebolts to be assessed	5
		All working at height equipment to receive pre use inspection and ongoing testing / servicing requirements as per manufacturer instructions	

Persons at risk: All site operatives & public

2.51.7 Task: Collapse of scaffold when erected and during erection or dismantle

Hazard	Risk	Control measures	RR
Serious or fatal injuries from falling materials or men	4 x	Operatives must inspect material prior to erection	1 x
	5 =	Client and other contractors to use the scaffold in accordance with the loading specified on the hand-over certificate/scaffold tag	5 =
		No modifications will be made to the scaffold, especially removal of ties or structural members - any modifications will be approved by	

20

scaffolding supervisor

5

Scaffolds to be physically tied throughout all stages of erection and dismantling

Levels of materials stored on the scaffold should be kept to the lowest possible level at all times and offloaded safely when ever possible

Scaffolds to be located upon firm and solid foundations that are capable of withstanding all impose loading

Persons at risk: All site operatives & public

2.52 Delivery and collection of scaffolding

2.52.1 Task: Delivery and collection of scaffolding by hand

Hazard	Risk	Control measures	RR
Impact or collision with persons, property and or vehicle whilst delivering or collecting scaffolding by hand	4	Use only trained, competent and skilled drivers/operatives	1
	x	Driver to be made familiar with the site layout before arrival, and entry and reversing operations to be supervised at all times	x
	2	New Roads and Street Works Act (NRSWA) trained staff to design, use and work on public highways	2
	=		=
	8	Scaffolders to undergo site induction and made aware work areas	2
		Scaffolders to wear PPE as per method statement at all times	
		Site supervisor to install exclusion zones and display clearly all relevant signage	
		If works are on the public highway, cones and signage must be in place together with pedestrian management	
		Access ladder onto trailer and hand rails or other type of fall prevention to be in place providing safe access onto vehicle, with materials banded wherever possible	
		Access-ways and drive through routes to be kept clear and unobstructed at all times	

Persons at risk: All site operatives & public

2.52.2 Task: Offloading and loading of scaffolding materials using lorry mounted crane

Hazard	Risk	Control measures	RR
Impact or collision with persons, property and or vehicle whilst delivering or collecting scaffolding by lorry mounted crane	5	Use only trained, competent and skilled operators of lorry mounted crane	1
	x		x
	3	Exclusion zones will be in place and relevant signage displayed clearly before unloading or loading any scaffolding materials	3
	=		=
	15	Use only certified lifting and well maintained lifting gear, all lifting gear will be inspected regularly by trained operative at main depot, operatives must be in possession of valid training card (IPAF / CPCS for vehicle mounted HIABs)	3
		Loads may only be lifted below safe working load of 1 TON	
		Vehicle will be parked on safe and level ground with outriggers extended as necessary	
		Site logistics and traffic management plan (TMP) to be followed at all times	
		Drivers to not exceed guidance working hours (i.e. in accordance with tachograph driver card	
		Fleet companies encouraged to be a member of safe driving scheme such as CLOCS or FORS	

Persons at risk: All site operatives & public

2.53 Demolition of brickwork

2.53.1 Task: Demolition of brick wall

Hazard	Risk	Control measures	RR
Unexpected collapse of brick structure causing serious or fatal injuries	4	A full demolition plan should be implemented before undertaking any work	1
	x		x
	5	Construction Phase Plan to be revised (where applicable) to incorporate demolition risk and mitigations	5
	=		=
	20	All demolition work to be undertaken by competent worker who has been trained safe demolition of brickwork walls, structures and openings	5
		Exclusion zones are established to keep unauthorised people outside of potential collapse zones and areas affected by rebounding material	
		Safety glasses, a dust mask, gloves and long-sleeved clothes are worn as protection from flying objects and dust	
		Hearing protection is worn to protect against excessive noise levels	
		Workers do not work from the top of a wall that is being demolished	
		A wall is not to be permitted to stand unless it is effectively supported against collapse and includes checking whether the wall to be demolished is providing support for other walls	
		When removing entire wall sections using manual demolition methods that incorporate hand tools, such as jackhammers, sledge hammers, and picks, avoid weakening the wall	
		Never taking down multiple rows of brick at once or starting at the bottom of the wall	
		Removing the top course of bricks using a hammer and chisel	
		Finish an entire row before starting the next	

Persons at risk: All site operatives

2.53.2 Task: Demolition of brick wall to create opening

Hazard	Risk	Control measures	RR
Unexpected collapse of brick opening from lack of support, causing serious or fatal injuries	4	When removing a portion of a wall where masonry will remain above the opening (eg to install a door or window), the upper area of masonry should be supported prior to commencing demolition and the demolition should commence at the top of the intended opening	1
	x		x
	5		5
	=		=
	20	Seek advice from structural engineer as required	5

Persons at risk: User

2.54 Using air hammers

2.54.1 Task: Using air hammers

Hazard	Risk	Control measures	RR
Hearing loss / damage from equipment noise	5	Maintain a 15m-exclusion zone as noted above.	1
	x	Operatives must wear ear defenders at all times.	x
	3	Keep access doors on the compressor shut	3
	=	Safe havens to be utilised for rest periods (e.g. welfare facilities on site)	=
	15	Health surveillance in place (e.g. audiometry testing); mandated hearing protection to be worn above 85 DB(A), exposure levels monitored and recorded daily	3
		Job rotation encouraged to reduce risk to an individual	
Persons at risk: All site operatives			
Fracture and/or failure of components	5	Inspect the hammer regularly, look particularly for cracking to the anvil and anvil retaining stops.	1
	x		x
	4	Ensure operator is trained and competent and is familiar with the suppliers operating controls and instructions.	4
	=		=
	20	The hammer should never be run off the pile.	4
		The operator should ensure that the supporting chain remains slack whilst the pile is being driven down	
		Equipment to be inspected and serviced by competent person in accordance with manufacturer instructions	
		Correct equipment should be selected for the task pre use inspection to be carried out to assist with early fault finding	
Persons at risk: All site operatives			
Explosion / fire hazard from emitted oil mist. Injury from contact with oil mist under pressure	5	Correct airline oil lubrication should be maintained.	1
	x	Maintain the personnel exclusion zone when the	x
	5	hammer is operating.	5
	=	Do not stand directly in line with the exhaust ports	=
	25	Correct fitting of the oil lubricator is essential – refer to suppliers operating instructions.	5
		Equipment should be inspected at the start of each shift or if the operator a oil mist leak is occurring during piling operations	
Persons at risk: All site operatives			
Injury from contact with / use of compressed air	5	Ensure all hoses couplings and clamps are regularly inspected and in good order.	1
	x		x
	4	Switch off compressor and decompress prior to removing hoses.	4

	=	Operate according to instructions in the operator's manual for the compressor.	=
	20		4
		Use hose retainers to avoid whiplash if hose ruptures during use	

Persons at risk: All site operatives

Injury from falling components	5		1
	x		x
	5	Maintain 15m exclusion zone when hammer is operating	5
	=		=
	25		5

Persons at risk: All site operatives

2.55 Vibratory hammers

2.55.1 Task: Using vibratory hammers

Hazard	Risk	Control measures	RR
Crushing hazard	4 x 4 = 16	Keep hands clear of the clamping mechanism Equipment only to be used by competent person Suitable hand protection to be worn	1 x 4 = 4
Persons at risk: User			
Pile falling from clamp	5 x 5 = 25	Ensure operator is trained and competent and familiar with the operational controls of the specific equipment in use. Ensure that the hydraulic hoses are in good condition. Ensure that the correct safety chain is fitted and is within certification and of sufficient capacity for the pile being lifted. Ensure that the retainer works correctly and is used at all times. Operatives should as far as is reasonably practicable stand clear from the slung pile whilst it is being traversed into position.	1 x 5 = 5
Persons at risk: All site operatives			
Hearing loss / damage from equipment noise	5 x 3 = 15	Operatives must wear ear defenders at all times. Maintain 15m-exclusion zone. If power-packs are insulated for sound, keep access doors shut. Equipment maintained to optimum operation in accordance with manufacturer instructions Job rotation encouraged to reduce risk to an individual Exclusion zones erected as required to reduce noise risk to others Noise exposure monitored and recorded; health surveillance in place	1 x 3 = 3
Persons at risk: All site operatives			
Vibration of equipment	5 x	Maintain a 15m-exclusion zone. Use high frequency or resonant free type vibrators	1 x

	4 = 20	Equipment maintained to optimum operation in accordance with manufacture instructions Vibration monitoring completed to ensure excess exposure does not occur, job rotation encouraged, rest breaks provided Procurement policy in place to acquire less hazardous tools	4 = 4
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Persons at risk: All site operatives

High pressure fluid injection	4 x 5 = 20	Ensure all hydraulic hoses and fittings are in good condition. Fit burst protection guards to hoses. PPE should be worn at all times. Equipment should be inspected at the start of each shift or if the operator suspects that the hoses have become snagged during piling operations.	1 x 5 = 5
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Persons at risk: All site operatives

Failure of swivel components	5 x 4 = 20	Regular inspections of the swivel connection including all pins and retaining clips should be carried out.	1 x 4 = 4
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Persons at risk: All site operatives

2.56 Cement rendering

2.56.1 Task: Working with cement

Hazard	Risk	Control measures	RR
Cement burns from cement contact with skin	4	All workers to be informed of cement hazards at induction	1
	x	Always use correct PPE that protects skin from cement contact, refer to method statement	x
	4	Suitable washing facilities to be available onsite, any contact with cement should be washed off immediately	4
	=		=
	16	Avoid skin contact with cement	4
		General COSHH arrangements to be followed (see cement data sheet and COSHH assessment)	
		First aid kits provided to attend to burns	
		Cement applied with hand tools to prevent direct skin contact with cement	
Persons at risk: User			

2.57 Using concrete blocks

2.57.1 Task: Moving blocks around site to load out

Hazard	Risk	Control measures	RR
Strains from weight of Blocks or falls from height	3	Depending on size of the blocks, separate if required to reduce weight	1
	x	Ensure the loads are mechanically loaded as near to work point as possible	x
	3	Ensure either safety netting or air bags are placed in the void below the work area	3
	=		=
	9	Stop work in severe weather or when you think conditions become unsafe and consult management	3

Persons at risk: User

2.57.2 Task: Cutting blocks

Hazard	Risk	Control measures	RR
Breathing in of dust created whilst cutting and injuries to eyes	3	Ensure cutting is carried out in a well ventilated area or local exhaust ventilation to be used	1
	x		x
	2	Wear a dust mask with face fit testing if prolonged cutting is to be carried out or working on a poorly ventilated area	2
	=		=
	6	Pre use inspection prior to using equipment to ensure correct disc used and no faults found	2
		Ensure goggles are worn when using abrasive wheels	
		Ensure operatives have had abrasive wheel training	
		Ensure disposable coveralls are worn	

Persons at risk: User

2.58 Pouring concrete

2.58.1 Task: Pouring concrete

Hazard	Risk	Control measures	RR
Contact with wet concrete to the skin and eyes causing severe chemical burns	5	Inform site operatives of hazards associated with concreting and the control measures to be implemented	1
	x		x
	4	Appropriate PPE including safety glasses to be worn at all times, and monitored for compliance throughout the pouring	4
	=		=
	20	Suitable welfare facilities for washing and immediate first aid (eye irrigation) facilities to be provided by client or principal contractor	4
		Provide health surveillance for workers who will be working with wet cement on a regular basis, and ensure operatives wash the skin with warm water and soap, or other skin cleanser, and dry after completing work or when necessary	

Persons at risk: User

Failure of support systems and/or platform before, during or after pouring causing injuries to those in vicinity	4	All concrete support systems are to be installed by competent persons	1
	x	Inspect all support systems and platforms immediately prior to the pour	x
	5	Use an appropriate means of pouring/delivering the concrete	5
	=		=
	20	Monitor support systems during the pour, particularly leading edge protection	5
		PPE footwear worn with tread to reduce chance of slips and trips	

Persons at risk: All site operatives

Entanglement of persons with moving parts of site plant	3	Ensure only a competent person may operate site plant	1
	x	Do not wear loose clothing that could be caught in rotating/moving parts	x
	5	Ensure all moving parts (where there is a risk of entanglement) are guarded, or other suitable measures are in place	5
	=		=
	15	Do not climb inside concrete drums	5
		Do not reach into rotating drums with hand/arm or shovel	
		Long hair to be tied back	

Persons at risk: User

2.58.2 Task: Walking across formwork

Hazard	Risk	Control measures	RR
Trips/falls particularly due to concrete reinforcement bars and risk of being impaled when falling	4	Operatives to be briefed regarding the risk and safety awareness during induction and before task	1
	x		x
	5	When practicable lay a board across kicker bars until immediately before the pour	5
	=		=

20

Ensure caps to reinforcement bars are installed where possible before the pour

5

Persons at risk: All site operatives

2.58.3 Task: Gross spillage of material

Hazard	Risk	Control measures	RR
Spillage of concrete material causing damage to environment	3	Where practicable allow spills to set and lift	1
	x	If this is not an option, lift the wet product with suitable equipment (depending on quantity split) into a suitable receptacle for later disposal	x
	3	Dispose of via authorised site or in accordance with Local Authority requirements	3
	=	Avoid spills into natural watercourses due to the alkalinity of the product	=
	9		3

Persons at risk: All site operatives & public

2.59 Safe storage of steel

2.59.1 Task: Safe storage of steel

Hazard	Risk	Control measures	RR
Injuries caused by being struck or crushed by moving steel stock	4	Stock should be stored and stacked so that it is not likely to fall or move and cause injury	1
	x	Any storage racking used is to be SEMA certified as required and operatives to be briefed on safe stacking of materials	x
	5	Likely damage, for example from lift trucks, should be taken into consideration when installing any storage racking, and must be properly installed, regularly inspected, maintained and safely used	5
	=		=
	20		5

Persons at risk: All site operatives

2.60 General masonry works

2.60.1 Task: General masonry works

Hazard	Risk	Control measures	RR
Serious head and other injuries to workers, others on site and members of the public	4	Plan stacking area and stack bricks neatly	1
	x	Brick guards kept in position on scaffold lifts	x
	5	Do not overload scaffolding	5
	=	Waste materials removed from scaffolding and placed in skip	=
	20	Safety helmets and protective footwear supplied and worn at all times	5

Persons at risk: All site operatives & public

Injuries sustained from operatives regularly lifting or carrying heavy or awkward objects such as a load of bricks	5	Refer to C.I.T.B. manual for safe install of masonry blocks or bricks	1
	x	Palletised bricks to be kept in planned stacking area	x
	3	Palletised bricks to be staked no higher than 2 metres	3
	=	Moving of palletised bricks by forklift only to be operated by a competent person	=
	15	Bricks, blocks, mortar etc to be transported and lifted to scaffold using telehandler or other mechanical goods lift	3
		Trolley to be used for moving loads of bricks around the scaffold	
		Brick piles to be covered during inclement weather and scaffold netting to be assessed	
		Manual handling risk assessment to be complete, split loads into manageable loads where possible	
		Manual handling training and toolbox talks to be provided	
		Individual capabilities assess including fitness for work	

Persons at risk: User

Skin disease such as dermatitis after having direct skin contact with the mortar	4	Risk of dermatitis or cement burns explained to all operatives	1
	x	Use cement or cement containing products within the use-by date	x
	3	Direct skin contact to be avoided, CE marked PVC gloves used when handling mortar	3
	=		=
	12	Check welfare facilities, ensure good washing facilities on site, with hot and cold water, soap and basins large enough to wash forearms	3
		First aid should be checked to ensure eye wash is included in site kit	
		Health checks and health surveillance in place	
		COSHH assessments in place with instructions to be followed	

Persons at risk: User

Inhalation and exposure to dust could cause silicosis and	4	Angle grinders replaced with block splitter, removing the risk of	1
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lung damage

x

3

significant dust exposure

=

Minimise the need to use grinder for chasing etc

12

x

3

=

3

Persons at risk: User

2.61 Working with lead

2.61.1 Task: Working with lead

Hazard	Risk	Control measures	RR
Serious health risk through inhaling lead dust, fumes, vapour or ingestion	4 x	Before undertaking any work, supervisor to assess whether risk is significant so he can then provide additional control measures if needed	1 x
	3 =	Ensure all staff have been trained in the safe use of lead, understanding risks of ingestion or inhalation together with operating machinery/ machinery safely	3 =
	12	Make sure operatives are trained for any emergencies when working with lead like a sudden uncontrolled release of lead dust or fume All PPE equipment provided should fit correctly and be in good condition, and return it at the end of the shift/day to the proper place provided by your employer Any damaged or defective equipment to be reported and replaced immediately by employer Washing & changing facilities will be provided by client for staff, where all operatives will practice a high standard of personal hygiene including washing hands, face and scrubbing nails The above good hygiene principals will be undertaken before drinking, eating or smoking A welfare area free from lead contamination where staff can eat and drink safely will be provided by client Keep immediate work area as clean and tidy as possible; clearing up any lead waste at the end of each day or shift Fume and or dust extraction will be implemented to prevent or control exposure to lead for site operatives and all equipment will be kept in efficient working order Once works complete, operatives should wash or shower before leaving work and not take home any protective clothing or footwear for washing or cleaning Work with HSE guidance INDG305 and ACOP L132 Health surveillance programme to be implemented	3

Persons at risk: User

2.61.2 Task: Working in areas with 'significant' exposure to lead

Hazard	Risk	Control measures	RR
Working in any areas deemed to cause 'significant' exposure to lead causing potentially serious health effects	4 x	All operatives will be trained in the safe handling and working with lead in environments of 'significant' exposure	1 x
	4 =	Operatives will be provided with protective clothing & PPE by employer, with training in the safe use of such equipment included	4 =

Employer will measure the level of lead in the air and let all site operatives know the results of tests and how this would effect your health

If exposure to lead cannot be kept below occupation exposure limit, the employer will provide you with respiratory protective equipment

Any 'significant' exposure areas where risk to inhalation of ingestion by public will include a more detailed control plan to ensure public exposure to lead is eliminated i.e. using industrial ventilation or extraction units

Site supervisor will make arrangements for laundering contaminated clothing

A doctor will visit the workplace every 3 months or sooner to measure the level of lead in all operatives blood and each operative will be informed of their respective results

If a doctor proves any operatives blood-lead level reaches the suspension level, the doctor will repeat the test and if this still confirms the result of the first test, operative(s) should not carry on working with lead

Persons at risk: User

2.62 Working on fragile roofs

2.62.1 Task: Working on fragile roofs

Hazard	Risk	Control measures	RR
Manual handling	4 x 4 = 16	All personnel will have been trained in the correct manual handling techniques.	1 x 4 = 4

Persons at risk: All site operatives

2.62.2 Task: Working in the roof space

Hazard	Risk	Control measures	RR
Falling through the floor	4 x 5 = 20	All operatives will only step on the floor joists. Where there is a danger of falling boards will be laid down.	1 x 5 = 5

Persons at risk: All site operatives

Poor / insufficient lighting	4 x 3 = 12	Adequate lighting will be provided	1 x 3 = 3
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Persons at risk: All site operatives

Confined space	4 x 4 = 16	As there is a throughput of air in the roof space unless the job entails using hazardous substances or creating dust then it is unlikely to be classed as a confined space under the regulations. An onsite inspection should help determine whether it is or isn't.	1 x 4 = 4
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Persons at risk: All site operatives

2.62.3 Task: Gaining access to the roof space

Hazard	Risk	Control measures	RR
Falls from unsecured ladders etc.	4 x	If a ladder is used to access the roof space then it will be secured beforehand. If items need to be moved into the roof space then one	1 x

	4 = 16	person will pass them up to the other one at a time.	4 = 4
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Persons at risk: All site operatives

2.62.4 Task: Clean up of site and removal of tools and equipment

Hazard	Risk	Control measures	RR
Slips, trips and falls	5 x 3 = 15	When all areas have been made good as detailed on the site plan all rubbish and debris will be removed as well as all tools and equipment.	1 x 3 = 3

Persons at risk: All site operatives

2.63 Fitting Roof and Low-level Roof Trusses

2.63.1 Task: Fitting Roof and Low-level Roof Trusses

Hazard	Risk	Control measures	RR
Being struck by hoisted trusses	4 x 3 = 12	Stand clear until banks man has truss in position	1 x 3 = 3
Persons at risk: All site operatives			
Cutting hands or fingers from cutting and fixing wall plates	4 x 2 = 8	Appropriate PPE to be worn Consult Using power tools risk assessment if unsure	1 x 2 = 2
Persons at risk: All site operatives			
Nail deflecting and hitting body when bracing trusses	5 x 3 = 15	All tools to be inspected before use. Appropriate PPE to be worn Consult Using power tools risk assessment if unsure	1 x 3 = 3
Persons at risk: All site operatives & public			
Cutting fingers or hands when fitting fascia and soffit	4 x 2 = 8	Appropriate PPE to be worn Consult Using hand tools risk assessment if unsure	1 x 2 = 2
Persons at risk: All site operatives			

2.64 Installing concrete roof tiles

2.64.1 Task: Moving tiles around roof to load out

Hazard	Risk	Control measures	RR
Injuries from moving heavy concrete tiles and falling materials/persons from height	3	Ensure gloves are worn	1
	x	Depending on size of tile packs, separate if required to reduce weight	x
	3	Ensure tiles are mechanically loaded as near to work point as possible	3
	=	Ensure either safety netting or air bags are placed in the void below the work area	=
	9	Stop work in severe weather or when you think conditions become unsafe and consult management	3
		Secure tiles during storage	
		Good housekeeping maintained in work area at all times	

Persons at risk: User

2.64.2 Task: Fixing concrete tiles to roof

Hazard	Risk	Control measures	RR
Falling through battens / felt to floors below	3	Ensure gloves are worn	1
	x	Ensure either safety netting or air bags are placed in the void below the work area	x
	3	Stop work in severe weather or when you think conditions become unsafe and consult management	3
	=		=
	9	Where possible and safe to do so, crawler boards used to distribute weight	3

Persons at risk: User

2.64.3 Task: Cutting concrete roof tiles

Hazard	Risk	Control measures	RR
Breathing in of dust created whilst cutting and damages to eyes	3	Ensure cutting is carried out in a well ventilated area	1
	x	Wear a dust mask if prolonged cutting is to be carried out or working on a poorly ventilated area	x
	2	Ensure goggles are worn when using abrasive wheels and follow abrasive wheels risk assessments	2
	=		=
	6	Ensure operatives have had abrasive wheel training	2
		Ensure disposable coveralls are worn	
		Local exhaust ventilation (LEV) to be considered and tool attachments to be used for dust extract	
		Wet cutting techniques or dampening down to be considered where possible	

2.65 Installing timber joists

2.65.1 Task: Installing timber joists

Hazard	Risk	Control measures	RR
Serious or fatal injuries sustained from falls or collapse of structure	4	Only trained and experienced joiners to undertake work, If inexperienced they are to work under the direct supervision of an experienced worker at all times	1
	x		x
	5	Fall protection should be positioned at the earliest possible opportunity and prior to joists being positioned	5
	=		=
	20	Wall plate must be of sufficient height above working platform to offer edge protection when lifting trusses into position on the wall plate (950mm)	5
		Access will be provided in the form of protected working platforms, joiners will not walk on wall heads as means of access	
		Joists are to be handled by sufficient people to maintain stability as well as manual handling hazards	
		Joist to be adequately braced or chocked to prevent rolling or moving	
		Joists must not be loaded until they are permanently braced and fixed	
		If access is required onto the joists, they must be adequately fixed and boarded to provide safe access and safe working platform, including edge protection	
		All temporary access onto the joists must be removed from the plot when the plot is left unattended	

Persons at risk: All site operatives

2.66 Working with roof tiles

2.66.1 Task: Moving tiles around roof to load out

Hazard	Risk	Control measures	RR
Sharp Edges cutting hands and weight of tile packs causing manual handling injuries	3	Ensure gloves are worn	1
	x	Ensure clay tiles are mechanically loaded as near to work point as possible	x
	3		3
	=	Ensure either safety netting or air bags are placed in the void below the work area	=
	9		3

Persons at risk: User

2.66.2 Task: Cutting tiles

Hazard	Risk	Control measures	RR
Breathing in of dust created whilst cutting exposing user to respirable crystalline silica, hand and eye injuries from abrasive wheels and dust contamination of clothes	4	Ensure cutting is carried out in a well ventilated area	1
	x	Wear a dust mask if prolonged cutting is to be carried out or working on a poorly ventilated area	x
	4	Valley tiles will be marked up at roof level and taken to a fixed location where they are cut whilst using engineering controls such as water suppression	4
	=		=
	16		4
		Ensure goggles are worn when using abrasive wheels	
		Ensure operatives have had abrasive wheel training	
		Ensure disposable coveralls are worn	
		Local exhaust ventilation (LEV) to be considered and tool attachments to be used for dust extract	
		Wet cutting techniques or dampening down to be considered where possible	

Persons at risk: User

2.67 Installation of roof trusses

2.67.1 Task: Installation of roof trusses

Hazard	Risk	Control measures	RR
Serious or fatal injuries sustained from falls, loss of footing or collapse of structure	5	Weather conditions (in particular wind speed) must be acceptable for truss installation work	1
	x		x
	5	The joists and stair opening at the first-floor level are to be fully boarded	5
	=		=
	25	The scaffolding lift is to be a convenient height for both safety and access into trusses - 'hop up' may be needed	5
		The wall plate must be of sufficient height above the working platform to offer edge protection when lifting trusses into position on the wall plate (950mm)	
		Where possible, roof trusses are to be assembled on the ground and lifted into position as a completed roof unit	
		Otherwise trusses are to be lifted onto the scaffold by mechanical means or with enough persons to ensure safety	
		Sufficient temporary boards are to be in position so that joiners can easily position and secure them within the trusses	
		Trusses are not to be left in a temporary un-secured state. Trusses must be secured and braced before being left	

Persons at risk: All site operatives

2.68 General plumbing works

2.68.1 Task: General plumbing

Hazard	Risk	Control measures	RR
Lung damage caused by inhalation of fumes and skin and eye damage from sealants	3	All substances required to perform plumbing activities are to be identified i.e. lead, solder, plumber flux etc. and the relevant COSHH assessments and personal protective equipment is to be made available	1
	x		x
	3	The use of respiratory equipment is to be considered in confined areas	3
	=		=
	9	Skin contact with sealants is to be avoided and they are to be washed from the skin as soon as possible if skin contact occurs	3
		All areas is to be kept very well ventilated during the sealant works and the minimum requirement is to open all doors and windows	
		Good hygiene measure to be followed and PPE gloves to be used	
Persons at risk: User			
Slips, trips and falls	4	All live pipework is to be isolated before undertaking any work to ensure no leakage	1
	x		x
	2	See the slips trips and falls risk assessment	2
	=		=
	8	Stout footwear worn to reduce chance of slip / trip event	2
Persons at risk: All site operatives			

2.69 Copper pipework installation

2.69.1 Task: Copper pipework installation

Hazard	Risk	Control measures	RR
Lung damage caused by inhalation of fumes (which may contain cadmium) and skin and eye damage from sealants	3 x 3 = 9	All substances required to perform plumbing activities are to be identified i.e. lead, solder, plumber flux etc. and the relevant COSHH assessments and personal protective equipment is to be made available The use of respiratory equipment is to be considered in confined areas Skin contact with sealants is to be avoided and skin is to be washed as soon as possible All areas are to be kept very well ventilated during sealant works and the minimum requirement is to open all doors and windows	1 x 3 = 3
Persons at risk: User			
Serious injuries sustained from fire or explosions whilst using a blowtorch or similar for brazing/bronze welding (oxy-acetylene and oxy-propane)	4 x 5 = 20	A hot work permit system should be implemented onsite by the principal contractor or client Site operatives must comply with safety procedures and manufacturers' instructions whilst undertaking hot works Hot works are only to be carried out by suitably trained and competent personnel Users are to ensure that all combustible materials are removed, and that flammable liquids and gas cylinders are beyond the range of the blowtorch When using a blowtorch on metal surfaces, combustible material in contact with the metal behind or adjacent to the work area is to be removed before work commences Operatives are to keep watch whilst work is in progress for signs of fire or smouldering in the immediate vicinity A portable fire extinguisher is to be readily available wherever and whenever hot works are in progress The blowtorch is always to be extinguished when it is not in use and it is never to be left burning whilst unattended Adequate ventilation is to be ensured where gas burning appliances are in use The area is to be checked thoroughly at the end of the work period and signed off as being safe on a hot works permit by the site supervisor and user	1 x 5 = 5
Persons at risk: All site operatives			

2.70 Thermal and acoustic insulation to pipework

2.70.1 Task: Thermal and acoustic insulation

Hazard	Risk	Control measures	RR
Lung damage caused by inhalation of fumes and skin and eye damage from adhesives, welding agents, or fibre from insulation	4	Operatives are to wear safety goggles and safety masks with face fit testing for operatives	1
	x		x
	2	The cutting and welding of insulation is to be minimised where possible	2
	=	All insulation works are to be undertaken in a well-ventilated area	=
	8		2

Persons at risk: User

2.71 Testing pressure systems

2.71.1 Task: Testing pressure systems

Hazard	Risk	Control measures	RR
Serious injury caused by brittle failures, missile generation or failure under pressurisation	4	Secure test area - the site supervisor is to be informed, any permit to work systems are to be in place, and warning notices are to be visible to others likely to enter the test area	1
	x		x
	5	The floor area is to be cleared before the test to reduce trip hazards in case of emergency	5
	=		=
	20	PPE (goggles) are to be worn	5
		All end caps are to be secured prior to the test commencement	
		A hose is to be connected to the drain valve throughout the test in case of emergency	
		A container is to be on hand in case of water leaks	
		Any spillages are to be cleaned up immediately and warning notices put in place if the area remains slippery	
		A complete air test is to be completed first to check for leaks	
		Once the air test is complete, pressurisation is to proceed in a slow, controlled and procedural manner	
		Site operatives are to monitor pipework throughout the pressure test	

Persons at risk: All site operatives

2.72 Installation of cable trunking and trays

2.72.1 Task: Fabrication and fixing of metal services i.e. conduit, basket tray unistrut

Hazard	Risk	Control measures	RR
Injuries or cuts to hands and eyes from general fixing and the assembly of metal services	4	The using portable tools or equipment risk assessment is to be followed	1
	x	A safe area is to be designated by site management to cut materials to size	x
	2	Materials are to be deburred and sharp edges removed	2
	=		=
	8	Cut resistant gloves/ gauntlets to be worn	2

Persons at risk: User

2.72.2 Task: Installation of cable trunking and trays at height

Hazard	Risk	Control measures	RR
Falls from height during cable tray installation causing serious injuries	4	The working from height risk assessment (specific to the access equipment being used) is to be followed	1
	x		x
	4	When installing cable trunking or trays at height, a safe system of work is to be employed including having another operative to assist with placement and mounting	4
	=		=
	16	Selection of suitable access equipment for task (PECO, MEWP, mobile scaffold tower) to be used/ ladders only to be used for low intensity and sporadic work	4
		Ladders to follow safe usage guidance and be regularly inspected to ensure equipment remains operational	

Persons at risk: User

2.73 Installing new lighting

2.73.1 Task: Installing new lighting

Hazard	Risk	Control measures	RR
Contact with live electricity resulting in serious or fatal injuries	4	A trained operative is to follow the electrical isolations risk assessment	1
	x	The manual handling risk assessment is to be followed when lifting and mounting new light fixtures into position	x
	5	Isolation certificate to be issued prior to works, test before touch to be followed through proving dead testing	5
	=	Any services that have to remain live are fully signed and briefed prior to commencing works	=
	20	If there is any doubt, seek the advice and instruction from LV / HV authorised person (AP) senior authorised person (SAP), Authorised Engineer (AE) or senior authorised engineer (SAE) as required	5
Persons at risk: User			
Falls from height during lighting installation	4	The working from height risk assessment (specific to the access equipment being used) is to be followed	1
	x	When pulling cables at height, a safe system of work is to be employed including having another operative to assist with cable pulling and cable mounting	x
	3	Working at Height (WAH) hierarchy of control is to be evaluated and implemented at all times (Avoid, Prevent, Reduce)	3
	=		=
	12		3
Persons at risk: User			
Falling objects causing head injuries	4	Items waiting to be installed to a high level are to always be secured on a stable platform or lifted into place using manual handling equipment	1
	x	The correct safety measures are to be in place to ensure tools or equipment do not fall from fixed or mobile platforms	x
	3	The correct PPE is to be worn by all site operatives	3
	=	Tool tethering to be used where tools are liable to fall or fall protection measures (toe boards, brick guards) to be assessed	=
	12		3
Persons at risk: All site operatives			

2.74 Electrical isolations

2.74.1 Task: Electrical Isolations

Hazard	Risk	Control measures	RR
Contact with live electricity causing serious or fatal injuries	4 x	Operatives are to ensure a safe system of work has been implemented with the principal contractor or representative	1 x
	5 =	Equipment is to be checked with a compliant tester, insulated hand tools and a competent electrician prior to commencing the works. The equipment is to be approved by the site supervisor	5 =
	20	The installation/circuit being isolated is to be switched off, and a voltage indicating device used to verify that no voltage is present. This is to be reconfirmed again All electrical equipment is to be made dead and locked off by a competent electrician and the keys are to be retained Warning notices are to be provided and operatives are to double check that the circuit or equipment is dead and locked off by lock out, tag out (LOTO) policy, to be followed at all times. Circuit main earth(s) are to be applied where necessary and precautions taken against adjacent live parts where necessary A permit to work is to be issued and local earth(s) applied where necessary Continual vigilance and monitoring of circuits is to be undertaken by a competent electrician or a designated site representative Only GS38 compliant test tools to be used Isolation certificate to be issued prior to works, test before touch to be followed through proving dead testing Any services that have to remain live are fully signed and briefed prior to commencing works If there is any doubt, seek the advice and instruction from LV / HV authorised person (AP) senior authorised person (SAP), Authorised Engineer (AE) or senior authorised engineer (SAE) as required	5
Persons at risk: User			

2.75 Installing a new distribution board

2.75.1 Task: Installing a new distribution board

Hazard	Risk	Control measures	RR
Contact with live electricity causing serious or fatal injuries	5 x	The electrical isolations risk assessment is to be followed	1 x
	5 =	A permit to work system is to be implemented	5 =
	25	A competent person is to be employed to undertake any works on or near distribution board	5
		All testing is to be completed as per the requirements of BS7671, ensuring that all dead tests are carried out prior to energising	5
		Install new distribution board electrical shock hazard	
		LOTO applied to prevent accidental re-energisation	

Persons at risk: User

2.75.2 Task: Installing new distribution board

Hazard	Risk	Control measures	RR
Cuts to hands or limbs during mounting of new distribution board	3 x	Follow the using portable tools or equipment risk assessment	1 x
	2 =	Follow manual handling risk assessment when lifting and mounting new distribution board into position	2 =
	6		2

Persons at risk: User

2.76 Electrical work up to 400 volts

2.76.1 Task: Electrical work up to 400 volts

Hazard	Risk	Control measures	RR
Serious or fatal burns and injuries from electric shock	5 x	Please consult your appointed person or authorised engineer (AP / AE) for site specific safe systems of work before proceeding	1 x
	5 =	Working on or near live equipment is not to be undertaken unless completely necessary and deemed as such by the principal contractor or representative	5 =
	25	A safe system of work is to be recorded when 'live' work is necessary and should only be undertaken by a trained and competent electrician If coordinating work where more than one group is involved, the necessary precautions and emergency procedures are to be discussed with all operatives The roles and responsibilities of the supervisors and workers, including those of any contractors who may be employed, are to be clearly defined before undertaking any work Any supervisors are to be competent to supervise the work, with the level of supervision being appropriate to the danger and the competence of those carrying out the work Sufficient lighting and working space is to be allowed for before undertaking any work The electrical isolations risk assessment is to be followed by a competent electrician Only a competent electrician may work on electrical services up to 400 volts. Unauthorised, unqualified or untrained people are not to be allowed to work on any electrical services Any live working is to be undertaken with a partner who will be able to assist in an emergency Correct PPE is to be worn at all times Specialist contractor to be used, and a member of NICEIC Enlist the guidance / instruction from an AP, SAP, AE SAE as required	5
Persons at risk: All site operatives			

2.77 Removal of existing electrical services

2.77.1 Task: Removal of existing electrical services

Hazard	Risk	Control measures	RR
Falls from height during strip out or removal of services	5 x 4 = 20	The working from height risk assessment is to be followed when stripping out fixtures, fittings and services from above When pulling cables at height, a safe system of work is to be employed including having another operative to assist with cable pulling	1 x 4 = 4
Persons at risk: User			
Contact with live electricity causing serious or fatal injuries	5 x 5 = 25	The electrical isolations risk assessment is to be followed A safe system of work is to be employed with the site supervisor	1 x 5 = 5
Persons at risk: All site operatives			

2.78 Electrical testing and commissioning

2.78.1 Task: Testing and commissioning

Hazard	Risk	Control measures	RR
Serious or fatal burns and injuries sustained from electric shock testing 'decommissioned' equipment	5	A competent testing electrician is to ensure that the equipment is dead and locked off	1
	x		x
	5	When testing equipment, where possible operatives are to test it dead, and if not possible they are to look at energising it to a safe current	5
	=		=
	25	The environment in the direct vicinity of the testing and commissioning is to be reviewed	5
		If testing on live equipment, the operative is to review the risk assessment for live testing	

Persons at risk: User

Serious or fatal burns and injuries from electric shock testing live equipment	5	Only test engineers are to be permitted to carry out testing of live equipment as part of their duties	1
	x		x
	5	The area is to be reviewed and it is to be determined if a separate test area can be created where the equipment can be taken for testing	5
	=		=
	25	Where possible, residual current devices (RCDs) are to be employed to provide supplementary protection	5
		Physical safeguards are to be applied to the equipment being tested to prevent injury, e.g. the use of temporary or permanent screens, barriers, and insulating mats	
		Isolating transformers are to be used as the source of the supply to mains-powered test equipment if possible when undertaking hardware precautions	
		Where the risk of arc flash exists, adequate calorific value PPE is to be employed and only properly-maintained insulated tools used	
		If using a test bench, all test equipment is to be placed on an insulated shelf immediately above the test bench	
		All test and shorting leads are to be fused	
		Where there is a risk of touching live parts, insulated gloves are to be worn	
		A second person is to be in attendance in case of an accident	

Persons at risk: User

2.79 Repairs to manholes and live drains

2.79.1 Task: Repairs to manholes and live drains

Hazard	Risk	Control measures	RR
Workers or members of the public contracting infectious diseases from contaminated drains	4 x 4 = 16	Operatives are to ensure personal hygiene is kept to a high standard The site supervisor is to ensure barrier creams and skin cleansing products are available The correct PPE is to be provided and may include disposable/ protective coveralls, rubber gloves and rubber boots All disposable coveralls are to be bagged onsite and disposed of once the works are complete An inoculation program is to be made available to all operatives identified as 'at risk' Toolbox talk on infectious diseases to be given Where applicable, operatives to carry Leptospirosis cards with them, informing GP if they suspect they have contracted a disease for early diagnosis and treatment	1 x 4 = 4
Persons at risk: User			
Injuries sustained to workers or members of the public due to exposed manholes	4 x 3 = 12	Any requirements for a manhole to be removed are to be coordinated with the site supervisor Operatives are to refer to the special permit procedure in the method statement if a working in confined space permit is required The area of concern is to be cordoned off with barriers The manhole cover is only to be removed whilst working in the manhole	1 x 3 = 3
Persons at risk: All site operatives & public			
Injury from manual handling of manhole covers	4 x 4 = 16	Manhole covers are very heavy Manual handling controls must be followed Dual lift or mechanical too to be used where possible for lifting all manhole covers	1 x 4 = 4
Persons at risk: All site operatives			

2.80 Gas fittings and fixtures works

2.80.1 Task: Gas fittings and fixtures works

Hazard	Risk	Control measures	RR
Injuries or death sustained from the inhalation or explosions of ignition sensitive gasses	4 x 5 = 20	A responsible person, e.g. a principal contractor, foreman, site manager or another person with overall control of the work, is to be nominated to ensure a safe method of work is undertaken Any person who disconnects a gas fitting shall, with the appropriate fitting, is to seal off every outlet of every pipe to which it was connected Any work related to installing or changing gas fixtures or fittings is not to be undertaken until it is shown that all gases have been prevented from release No person carrying out work in relation to a gas fitting is to leave the fitting unattended unless every incomplete gasway has been sealed with the appropriate fitting or the gas fitting is otherwise safe If work in relation to a gas fitting which might affect the gas tightness of the gas installation is carried out, operatives are to test the installation as far as the nearest valves upstream and downstream in the installation Any person installing a gas fitting is to ensure that it is properly supported and placed or protected so as to avoid any undue risk of damage to the fitting No person is to install a gas fitting if they have reason to suspect that foreign matter may block or otherwise interfere with the safe operation of the fitting No person is to install a gas fitting in a position where it is likely to be exposed to any substance which may corrode gas fittings Intrinsically safe equipment is only to be used (ATEX)	1 x 5 = 5
Persons at risk: User			

2.81 Installation of cabling

2.81.1 Task: Installation of cabling

Hazard	Risk	Control measures	RR
Cuts, abrasions and possible injury to eyes during cable installation and termination works	3	Operatives are to be wearing the correct PPE, including gloves, hi-vis jackets, hard hats, safety glasses and boots	1
	x		x
	2	Cable ends are to be covered or taped before the final termination to minimise cuts	2
	=		=
	6	All operatives are to be competent and trained to strip/cut cabling to minimise flying debris and cuts	2

Persons at risk: User

Contact with live electricity causing serious or fatal injuries	3	Site management is to ensure all power has been terminated in the areas of work	1
	x		x
	3	Any isolations are to be undertaken by a competent operative who needs to follow the electrical isolations risk assessment before undertaking any work	3
	=		=
	9	Isolation certificate to be issued prior to works, test before touch to be followed through proving dead testing	3
		Any services that have to remain live are fully signed and briefed prior to commencing works	
		If there is any doubt, seek the advice and instruction from LV / HV authorised person (AP) senior authorised person (SAP), Authorised Engineer (AE) or senior authorised engineer (SAE) as required	

Persons at risk: User

2.81.2 Task: Installation of cabling at height

Hazard	Risk	Control measures	RR
Falls from height during cable installation	4	Operatives are to follow the working from height risk assessment (specific to the access equipment being used)	1
	x		x
	3	When installing cables at height, a safe system of work is to be employed, including having another operative to assist with cable pulling and cable mounting	3
	=		=
	12		3

Persons at risk: User

2.82 Installation of a solar photovoltaic system

2.82.1 Task: Manual handling of PV panels to roof level

Hazard	Risk	Control measures	RR
Back injuries sustained during the carrying of PV panels	3 x	Safe manual handling methods are to be followed (solar panels weigh approximately 22kg)	1 x
	3 =	Operatives are to be trained in manual handling kinetic techniques	3 =
		Toolbox talks are to be given as required	
	9	Mechanical aids to be considered or dual lifts encouraged	3

Persons at risk: User

A PV panel could fall during a lift causing serious or fatal injuries to those below	3 x	An exclusion zone is to be set up at the base of the works	1 x
	5 =	The operative is to stand under the cover of a scaffold platform whilst raising PV panel up to the next level	5 =
	15		5

Persons at risk: All site operatives

2.82.2 Task: Use of a gin wheel to hoist PV panels to roof level

Hazard	Risk	Control measures	RR
A PV panel could fall during a lift causing serious or fatal injuries to those below	2 x	Installers are to be trained and competent	1 x
		An exclusion zone is to be set up at the base of the works	
	5 =	A spreader beam is to be used to sling and lift up the panels	5 =
		Nylon lifting straps are to be subject to a visual inspection before use	
	10	The safe working load (SWL) of all lifting equipment is not to be exceeded, simple lifting plan is to be produced and approved	5
		The SWL of the working platform is not to be exceeded	

Persons at risk: All site operatives

2.83 Testing and commissioning fire alarm systems in an occupied space

2.83.1 Task: Testing and commissioning a fire alarm system in an occupied space

Hazard	Risk	Control measures	RR
Injuries caused to building occupants or site staff when escaping under a live fire alarm during testing and commissioning	4	All fire alarm tests are to be coordinated with the client or site management and all fire marshals are to be made aware on the day of testing	1
	x		x
	1	If possible, fire alarm tests are only to be undertaken in one local area at a time to minimise disruption to occupants or site staff	1
	=		=
	4	control of works to be completed by a BAFE certified engineer / company	1
		Commissioning of fire alarm system to comply with BS 5839-1 and commissioning certificate issued	

Persons at risk: All site operatives & public

2.84 General plastering/tape and jointing works

2.84.1 Task: General plastering/tape and jointing works

Hazard	Risk	Control measures	RR
Lung damage caused by sanding down surfaces	4	All site operatives are to be educated on the risks of dry plaster powder and know to avoid skin contact, excessive dust build-up and contact with eyes	1
	x		x
	2	Users are to wear eye protection when plastering ceilings	2
	=		=
	8	Users are to ensure the work area is kept clean and tidy	2
		If using powered sanding machines, a dust collection system is to be present	
		If sanding by hand, operatives are to wear dust masks to prevent inhalation	

Persons at risk: User

Lung damage or difficulties breathing from mixing and sanding powdered fillers	3	Dust masks should be worn when mixing up filler solution	1
	x	The filler solution is to be mixed in a well ventilated and nominated area by the site supervisor	x
	2	If using powered sanding machines, a dust collection system is to be present	2
	=		=
	6		2

Persons at risk: User

2.85 Disposal of waste materials

2.85.1 Task: Disposal of waste materials

Hazard	Risk	Control measures	RR
Contact with waste materials or chemicals whilst they are being transferred from the vehicle or the skip which may result in injury	4	Appropriate receptacles for waste materials are to be used	1
	x	All operatives are to keep site tidy at all times	x
	4	Any hazardous waste is to have fully dried in its original container before disposing of it into site skips	4
	=		=
	16	COSHH assessments to be followed	4
		Lids are to be re-fitted to containers before they are transferred to the waste point	
Persons at risk: User			

2.86 Installation of new flooring systems

2.86.1 Task: Installation of new flooring systems

Hazard	Risk	Control measures	RR
Poor handling technique used by employees causing back or upper limb injury	4	Personnel are to be trained in manual handling	1
	x	Mechanical aids such as pallet trucks or barrows are to be used	x
	3	The works area is to be cleared and cordoned off with physical barriers	3
	=	The method statement for safe fitting is to be followed	=
	12		3

Persons at risk: User

Contact with safety knife blades, cutting equipment, or with an electrical supply	4	All plant are to be pre-inspected before use	1
	x	Self-retracting knives are to be returned to protective sheaths after use	x
	3	Only battery and 110v operated equipment are to be used	3
	=	All equipment are to be PAT tested (3 monthly)	=
	12	Level 5 gloves and safety boots with ankle support are to be worn	3
		The working area is to be well lit through the use of task lights	

Persons at risk: User

2.86.2 Task: Installation on floor levels and working from height

Hazard	Risk	Control measures	RR
Falling from height and tools and materials falling on personnel below	4	Work areas are to be cordoned off with physical barriers	1
	x	Internal stairs are to be fully fitted and have edge protection fitted for full use	x
	5	All edges are to have protection and operatives are only to work from safe and stable positions on stairs or landings	5
	=	Stairs are to be closed to other trades (arranged via daily Safe Start meeting)	=
	20		5

Persons at risk: All site operatives

2.87 Transporting materials and tools

2.87.1 Task: Removal of materials, tools and flooring systems from carriage vehicles

Hazard	Risk	Control measures	RR
Materials, tools or rolls may fall or items may fall due to damage in transit causing impact/contact/crush injuries Poor handling techniques may cause back injuries or upper limb injuries	4 x 4 = 16	Personnel will be trained in manual handling Mechanical aids such as pallet trucks or carpet barrows are to be used The transport distance is to be minimised with the unloading procedure All loads and rolls are to be secured to vehicles for transit	1 x 4 = 4
Persons at risk: User			
Passers-by may be struck by materials for rolls being unloaded	4 x 3 = 12	Personnel are to be trained in manual handling Safe working practice, PPE, and warning signs are to be used where appropriate The unloading area is to be isolated or cordoned off where practical All will be planned in advance in daily Safe Start meetings	1 x 3 = 3
Persons at risk: All site operatives			

2.87.2 Task: Transportation of materials from vehicles to the job site

Hazard	Risk	Control measures	RR
Materials, tools or rolls may fall or move in transit causing impact injury Poor handling techniques may cause back injuries or upper limb injuries	4 x 4 = 16	Personnel are to be trained in manual handling Level 5 safety gloves are to be worn to protect against cuts and safety boots with ankle supports are to be worn to protect from falling loads Warning signs are to be employed Mechanical aids such as pallet trucks or carpet barrows are to be used Materials are to be carried one box at a time (max. 25kg per unit)	1 x 4 = 4
Persons at risk: User			

2.87.3 Task: Transportation of materials, tools and rolls from vehicles to the job site

Hazard	Risk	Control measures	RR
Poor handling technique by employees manually handling items causing back or upper limb injuries	4 x 3 = 12	Personnel are to be trained in manual handling Mechanical aids such as pallet trucks or carpet barrows are to be used Carrying distances are to be minimised and the site access route and duckboards/access route surfacing are to be checked for suitability Slip and trip hazards/poor materials etc are to be removed	1 x 3 = 3
Persons at risk: User			

2.87.4 Task: Storage of materials, tools and rolls on site prior to installation

Hazard	Risk	Control measures	RR
Persons may trip or fall over materials, tools and rolls causing bruising or lacerations	4	Personnel are to be trained in manual handling	1
	x	Level 5 safety fingered gloves are to be worn to protect against cuts and safety boots with ankle supports are to be worn to protect from falling loads	x
	3		3
	=		=
	12	Warning signs are to be employed and work/storage areas cordoned off with physical barriers	3
		Materials are to be stored according to the manufacturers' specifications on a level surface	
		All other materials are to be stacked neatly ensuring that stacks are no higher than three times the minimum base width	
Persons at risk: All site operatives			

2.88 Using mechanical tile cutters

2.88.1 Task: Operating mechanical tile cutters

Hazard	Risk	Control measures	RR
Entanglement in tile cutter	4 x 3 = 12	Operatives are to ensure the power is off before starting work Operatives are to ensure table wheels are locked before operating the tile cutter The work area is to be cleared of debris and clutter Loose clothing and hair is to be secured Operatives are to remove all jewellery	1 x 3 = 3
Persons at risk: User			
Electrocution from water coming into contact with a power source or outlet	4 x 5 = 20	Tile cutting is to be undertaken in a clear, level and safe designated area The tile cutter is to be positioned away from any power sources where ejected water may come into contact with electricity Electricity in close proximity to the tile cutting area is to be isolated A residual current device (RCD) or earth monitoring device is to be used where possible and it is to be checked daily to ensure that it is working Operatives are to check for damage, worn parts, misalignment and damaged saw blades and check the electric cord before using The tray is not to be overfilled with water, only filled to the point marker Operatives are to ensure water is flowing from the pump The power cord is to be disconnected, debris cleared away and the water tray emptied after use	1 x 5 = 5
Persons at risk: User			
Serious injuries sustained to eyes or body from contact with flying objects or cutting wheels	4 x 3 = 12	Only operatives with the training and authorisation to use tile cutting tools should undertake the work The correct PPE is to be worn at all times when using tile cutters, including safety goggles and gloves The guard on the tile cutter is to be correctly adjusted to suit the work position	1 x 3 = 3
Persons at risk: User			
Damage to lungs through the inhalation of dust	4 x 3 = 12	Where possible, dust extraction is to be used or tile cutting work is to be undertaken in a well ventilated area All operatives in the area are to wear the correct PPE. Masks may be required depending on the application HSE Construction Information Sheets 36, 54 are to be referred to for	1 x 3 = 3

further dust control information if necessary

Persons at risk: User

Injuries sustained from the use of noisy equipment	4	Where possible, the need for mechanical tile cutting is to be removed by using manual hand tool cutting	1
	x		x
	4	A designated area for mechanical tile cutting is to be used where possible	4
	=		=
	16	When cutting in situ, the area is to be cleared of personnel or they are to be provided with hearing protection	4
		Hearing protection is to be worn by operatives at all times	

Persons at risk: All site operatives

2.89 Mixing and applying floor preparation products

2.89.1 Task: Mixing and applying floor preparation products

Hazard	Risk	Control measures	RR
Risk of skin infections, lung disease, eye damage and intestine damage when using Evo-Stik or similar	4	SDSs are to be obtained for all hazardous substances used	1
	x	COSHH assessments are to be undertaken prior to the works and precautions including emergency arrangements are to be communicated to all operatives	x
	2		2
	=		=
	8	The PPE selected in the method statement is to be worn at all times	2
		Adequate welfare facilities are to be provided by the principal contractor or client	
		Suitable ventilation is to be allowed for to reduce the concentration of fumes within the immediate area	
		Welfare provisions are to be allowed for to remove contaminants from operatives skin in the event of contact	

Persons at risk: User

2.90 Preparing surfaces for decorations

2.90.1 Task: Preparing surfaces for decorations

Hazard	Risk	Control measures	RR
Lung damage or difficulty breathing from mixing and sanding powdered fillers	3 x 2 = 6	A dust mask is to be worn when mixing up the filler solution The filler solution is to be mixed in a well ventilated and nominated area by the site supervisor COSHH assessments to be followed	1 x 2 = 2
Persons at risk: User			
Cuts to hands from preparing surfaces	4 x 2 = 8	Operatives are to wear gloves when cleaning surfaces Cuts and open wounds are to be covered with onsite first aid supplies and all accidents are to be reported to the site supervisor Operatives are to wash and wipe their hands before eating, drinking, smoking and after their shift	1 x 1 = 1
Persons at risk: User			
Lung damage or difficulty breathing from the use of chemical paint strippers	4 x 2 = 8	Overalls, gloves, eye protection and masks are to be worn when using chemical paint strippers Operatives are to wash their hands before coming into contact with any food The COSHH statement is to be reviewed if chemical strippers are used No naked flames are to be allowed in the vicinity	1 x 2 = 2
Persons at risk: User			
Lung damage or difficulty breathing caused by sanding and making good old work	3 x 2 = 6	If using powered sanding machines, a dust collection system is to be present Operatives are to check before preparing if old paint had been used containing lead If sanding by hand, operatives are to wear dust masks to prevent inhalation and check the method statement for selected PPE	1 x 2 = 2
Persons at risk: User			

2.91 General painting works

2.91.1 Task: Painting and use of solvents

Hazard	Risk	Control measures	RR
Lung damage caused by inhalation of fumes and skin and eye damage caused by the usage of solvents or paints	4 x 2 = 8	All paints are to be approved under the health and safety control system The safety data sheet (SDS) for the particular paint is to be referred to for specific information The COSHH assessment for the product is to be followed Water-based paints are to be used wherever possible Solvent-based paints are only to be used if there is a technical reason for not being able to use water-based paint All areas are to be kept very well ventilated during painting and the minimum requirement is to open all doors and windows If solvent-based paints are to be used, additional precautions will be needed (e.g. forced ventilation) The use of respiratory equipment is to be considered in confined areas Skin contact is to be avoided and operatives are to wash paints/solvents from their skin as soon as possible	1 x 2 = 2
Persons at risk: User			
Possible burns caused by contact with solvents or paints	4 x 2 = 8	Gloves are to be worn when cleaning surfaces Cuts and open wounds are to be covered with onsite first aid supplies and all accidents are to be reported to the site supervisor Operatives are to wash and wipe their hands before eating, drinking and smoking and after their shift	1 x 2 = 2
Persons at risk: User			
Lung damage or difficulty breathing caused by inhaling debris and dust	4 x 2 = 8	The method statement is to be referred to for the correct PPE The selected protective equipment is to be worn when at risk (i.e. dust mask, goggles)	1 x 2 = 2
Persons at risk: User			

2.92 Handling and installing glass

2.92.1 Task: Handling and installing glass

Hazard	Risk	Control measures	RR
Serious injuries or cuts sustained from broken or exploding glass whilst manual handling	4	The unloading of deliveries risk assessment is to be followed	1
	x	As far as reasonably practicable, manual handling of glass is to be avoided by using mechanical handling equipment/vacuum suckers	x
	4	All operatives are to have been trained in the safe manual handling of glass	4
	=		=
	16	For transportable racks, pallets and stillages, an angle of 5° – 6° is recommended	4
		A banksman is to be used for transporting large panes of glass	
		Operatives are to check wind conditions and ensure any movement of glass will not be susceptible to being dropped in freak winds	
		Suitable PPE is to be worn - refer to the method statement	
		Any working at height is to follow the working at height risk assessment	
		Glazing is to be disposed of through a licensed disposal site	
		When unloading spillages, glass is to be completely removed from the front before attempting to take other panes from the centre of the stack	

Persons at risk: All site operatives & public

Serious injuries or cuts sustained from a collision with installed or stored glass	3	The storage area and method of storage is to be suitable for the site conditions	1
	x		x
	5	The glass is not to be in contact with any substance that is harder than itself, e.g. concrete, stone, ferrous metals	5
	=		=
	15	The angle of inclination or lean of the glass is to be 3° from the vertical on static racks	5
		Glass stored on its edge is to be supported as evenly as possible over its surface area	
		Glass is to be covered with sheeting and appropriate warning signage used where it is stored	
		When full height glass panels are fitted to access routes/vulnerable areas, manifestation or clear marking is to be in place	

Persons at risk: All site operatives

2.93 Laying of brick or block paving

2.93.1 Task: Manual lifting and laying of paving blocks

Hazard	Risk	Control measures	RR
Musculoskeletal injuries from lifting and laying paving stones/ blocks	4	Paving blocks weighing in excess of 20kg are to be laid mechanically unless site circumstances make this impractical	1
	x		x
	3	Mechanical means are to be used where possible to transport paving blocks and they are to be positioned as close as possible to the working area to avoid stretching	3
	=		=
	12	Knee pads are to be worn when laying paving; impact resistant glasses are to be worn when cutting; dust mask are to be worn when mixing compounds; boots are to be worn at all times	3

Persons at risk: User

2.93.2 Task: Mechanical laying of paving blocks

Hazard	Risk	Control measures	RR
Trapped toes or fingers and injuries to body parts from mechanical laying of paving stones/blocks	4	Vacuum lifting is to be used in accordance with the manufacturer's instructions by trained operatives	1
	x		x
	3	All lifting gear is to be visually checked daily and hold a current certificate of thorough examination (thorough examination is to be carried out every 6 months)	3
	=		=
	12	Paving blocks are to be lifted into place using a vacuum lifter suspended from a suitable machine	3

Persons at risk: All site operatives

2.94 General cleaning works

2.94.1 Task: Using cleaning products

Hazard	Risk	Control measures	RR
Contact with bleach and other cleaning chemicals causing irritation or eye damage	4 x 3 = 12	PPE requirements are to be followed, and long-handled mops/brushes and appropriate gloves should be provided as standard and operatives trained in their use All operatives are to be trained in the risks, use and storage of cleaning chemicals and they are to wear PPE when handling chemicals or as instructed Any cleaning chemicals marked 'irritant' are to be substituted, where possible, for milder alternatives The employer is to provide cleaning machines designed to minimise the handling of cleaning chemicals by operatives All operatives are to be reminded to wash gloves and aprons after use Any health problems from cleaning are to be reported to supervisors and operatives are to check for dry, red or itchy skin on their hands	1 x 3 = 3

Persons at risk: User

Slips, trips or falls caused by using cleaning products on floor surfaces	4 x 3 = 12	See the slips trips and falls risk assessment for general controls The correct cleaning equipment for the job is to be used and staff are to follow safe systems of work The areas are to be cordoned off where possible and the correct signage for slippery surfaces are to be provided at all times Any spillages of liquids are to be cleared up immediately and the floor left dry Operatives are to never leave cleaning materials or equipment unattended Where possible, cleaning machines without cables are to be used and, where cabled machines are necessary, operatives are to ensure they are plugged in at the closest socket to the works with appropriate signage to illustrate the trip hazards All areas are to be well lit during cleaning, and whilst surfaces are still drying	1 x 3 = 3
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Persons at risk: All site operatives & public

2.94.2 Task: Cleaning at height

Hazard	Risk	Control measures	RR
Serious injuries such as bruising or fractures from falls from height whilst cleaning	4 x 4	A 'no ladders' policy is to be enforced when cleaning from height All high-level cleaning is to be done by trained staff working from floor level, using telescopic poles with cleaning tools attached	1 x 4

=	Access equipment is only to be used as a last resort. If needed, the relevant access equipment risk assessment is to be provided	=
16		4

Persons at risk: User

2.94.3 Task: Machine cleaning of floor space

Hazard	Risk	Control measures	RR
Injuries from improper use of cleaning plant	5	All cleaners are to be trained in the safe use of machines and wear the correct PPE (as mentioned in the method statement)	1
	x		x
	2	The correct machine is to be provided for each job	2
	=	Damaged plugs, cables and on/off switches are to be checked before using	=
	10	All machines are to be regularly maintained and examined by a competent person	2

Persons at risk: User

2.94.4 Task: Cleaning up or around sharps

Hazard	Risk	Control measures	RR
Picking up litter with potential injury from sharp objects	4	Operatives are to be trained in safe systems of work and provided with suitable tools (litter pickers) and personal protective equipment	1
	x		x
	2	Staff are to be continually reminded of the dangers of sharp objects whilst cleaning	2
	=		=
	8	Operatives should not touch any needles- be aware of where you are putting your hands	2
		Do not re-sheath needle	
		Place needle end in box first	
		Do not push down	
		Do not use any other containers other than a sharps container (BS 7320)	
		Containers should generally only be filled 3/4 full, or to the manufacturer's fill line	
		Liquids should not be placed in sharps containers	
		Tweezers go in the sharps box if contaminated	
		Never put your fingers into the box	

Persons at risk: User

Site briefing and induction form

Saiao Build

All persons who have signed below confirm that they have been briefed on the safe working methods and arrangements detailed in this method of work statement.

[illegible]

Supervision and personnel

Name	Role	Phone
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