

# Rochford Construction Ltd

36678A1

Haverstock Hill, Belsize Park, NW3 2AJ



## Method Statement for:

### Continuous Flight Auger Piling

<b>Contract No:</b>	<b>36678A1</b>
<b>Contractor:</b>	<b>Rochford Construction Ltd</b>
<b>Site Address:</b>	<b>192 Haverstock Hill, Belsize Park, NW3 2AJ</b>
<b>Site Manager:</b>	<b>TBC</b>
<b>Mobile No:</b>	<b>TBC</b>
<b>Working Hours:</b>	<b>TBC.</b>
<b>Project Type:</b>	<b>New High Rise Development.</b>
<b>No of Piles:</b>	<b>140</b>
<b>Pile Diameter:</b>	<b>450mm</b>
<b>Restrictions:</b>	<b>Small Site, Enclosed by Underground station and existing buildings</b>
<b>Contract Start Date:</b>	<b>W/C TBC</b>
<b>Scope Of Works:</b>	<b>Contig Wall.</b>

<b>Revision:</b>	<b>Amendments:</b>	<b>Date:</b>	<b>Complied By:</b>	<b>Approved By:</b>
<b>A</b>	<b>New Method Statement</b>	<b>08/09</b>	<b>KH</b>	<b>SN</b>

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This document has been produced in line with the Central Piling Health & Safety, Environmental and Quality policies.

Central Piling has been assessed and achieved ISO9001, ISO14001 & OHSAS18001 and is a member of the FPS [Federation of Piling Specialists].

## 1. Responsible Persons:

### Managing Director: Steve Hadley

Tel: 01787 474000

Email: [stevehadley@centralpiling.com](mailto:stevehadley@centralpiling.com)

Responsibilities: Director of Health & Safety at Central Piling. To implement, co-ordinate and control the administration of Health and Safety matters within the company.

### Contracts Director: Roger Cox

Tel: 01787 474000

Mobile: 07816 325054

Email: [rogercox@centralpiling.com](mailto:rogercox@centralpiling.com)

Responsibilities: To manage all contracts whilst staying abreast of developments in Health, Safety & Environmental legislation and good working practices. Ensuring that any new developments are communicated both quickly and effectively to all company staff.

### HSQE & Operations Manager: Colin Newman

Tel: 01787 474000

Mobile: 07976 219209

Email: [colinnewman@centralpiling.com](mailto:colinnewman@centralpiling.com)

Responsibilities: To monitor, control and correct the Health and Safety actions of all employees and others under his jurisdiction to ensure Health and Safety is given top priority and that the Company's Health and Safety Policy is fully understood and implemented.  
To ensure all employees receive the correct training and information for their given tasks.  
Also to make sure any accidents, incidents and near misses are investigated fully.

### Contracts Supervisor: Kriss Hemming

Mobile: 07966 398814

Email: [krisshemming@centralpiling.com](mailto:krisshemming@centralpiling.com)

Responsibilities: To complete initial site visit and produce the RAMs for the contract. To liaise with the Client ensuring site is prepared for the establishment of the Piling Rig and equipment prior to start.  
To ensure all documentation and drawings are correct and that the Working Platform Certificate and Quality Check Sheet are completed before the contract commences.  
To liaise with the Site Manager throughout the term of the contract to ensure compliance with site Health & Safety rules and regulations and also monitor site production and progress and to address any concerns with the client.

## 2. Site Control

- 2.1. The rig driver/site supervisor is in control of the works at site level. Should any problems arise beyond his authority, the contracts supervisor, HSQE & operations manager or contracts director will be contacted.
- 2.2. Any health & safety problems or concerns arising on site then the HSQE & operations manager or contracts director should be informed immediately.

## 3. Health & Safety

- 3.1. Central Piling employees will operate in a safe and diligent manner at all times in accordance with their Health & Safety Policy. They will work in accordance with the method statement and risk assessment at all times.
- 3.2. Personnel Protective Equipment will be worn at all times whilst on site. The company's minimum requirement is: hard hat, safety boots, safety glasses, rubber gloves and hi-viz clothing [T-Shirt, trousers, vest or jacket]. Additional Personnel Protective Equipment will be worn for site specific work as required by the risk assessment i.e. overalls, dust mask and ear defenders.
- 3.3. Health & safety is monitored daily by the HSQE & operations manager and any incidents, accidents or near misses are investigated promptly. All employees are encouraged to report any accidents, incidents or near misses to the HSQE & operations manager.
- 3.4. Site inspections/ audits are carried out randomly, at least once a job and the report will be made available to the client and any issues will be passed on to the relevant supervisor/ manager to act.
- 3.5. Central Piling has a monthly safety, quality, environmental & management committee meeting which discusses any relevant issues arising and all non-conformances raised.
- 3.6. All Central Piling site employees will signed the RAMs for the contract and undertake cliental site induction before commencing work on site.
- 3.7. The site supervisor/ rig driver will deliver a FPS toolbox talk/ briefing to all Central Piling site operatives at weekly intervals throughout the contract. A copy will be made available for the client if requested.

## 4. Site Operatives/Training

4.1. Site operatives matrix below shows the minimum requirement for a CFA piling rig contract:

Site Operatives:	CITB Certificate:			CPCS Tickets			IPAF Card	First Aid At Work	Asbestos Awareness
	SMSTS	SSSTS Or PSSTS	CSCS Tested	Piling Rig	Trailer Mounted Concrete Pump	Slinger/ Signaller			
Contracts Supervisor:	X		X				X	X	
Site Supervisor/ Rig Driver:		X	X	X			X	X	X
Pump Operator:			X		X		X		X
Banksman:			X			X	X		X
Setting-Out Engineer:			X						
Steelfixer: [Sub-Contractor]			X						

4.2. No site operatives will operate any plant/ equipment for which they have not been trained or authorised to do so by Central Piling management team.

## 5. Supplied Plant & Equipment

5.1. Central Piling will supply the plant and equipment below for the CFA contract.

5.2. **CFA Piling Rig:** [See appendix A]

The Piling Rig is inspected yearly by a qualified insurance inspector [certificate provided]. All chains, shackles, safety harness and lanyards will be tested every six months. A competent person will complete the LOLER [Lifting Operations and Lifting Equipment Regulations] section in the weekly inspection register weekly. All faults are listed weekly on the weekly examination sheet and sent to the office for action. Any immediate problems are telephone directly to the plant manager. All the above certification is kept with the piling rig ready for inspection.

5.3. **Trailer Mounted Concrete Pump** [Hired Putzmeister 55]:

This equipment comes under the PUWER Regs [Provision and Use of Work Equipment Regulations], the equipment is inspected weekly by a competent person and the findings are logged in the weekly inspection register and weekly examination sheet. Any immediate problems are telephoned directly to the hire company.

5.4. **2 Tool Compressor:**

This equipment comes under the PUWER Regs [Provision and Use of Work Equipment Regulations], the equipment is inspected weekly by a competent person and the findings are

logged in the weekly inspection register and the weekly examination sheet. Any immediate problems are telephoned directly to the plant manager.

## 5.5. **Mobile Elevating Work Platform [MEWP]** [Hired]

The MEWP is inspected six monthly by a qualified insurance inspector. [See MEWP for certificate] A competent person will inspect the MEWP weekly and record their findings in the LOLER [Lifting Operations and Lifting Equipment Regulations] sheet in the weekly inspection register. Any immediate problems are telephoned directly to the hire company. The MEWP will be a standard machine without the safety bar around the basket, there is a zero risk that the operator is at risk of crushing.

5.6. Diesel will be delivered in 110% bunded 200 litres locked containers and stored in a secure location near the holding drum. A 1100 litre bunded diesel bowser will be used to store diesel on larger contracts. A spill kit will be positioned next to the re-fuelling area.

5.7. Ancillary equipment required for CFA Piling consists of: augers, ramp, small container, [COSHH store] water butts, cage stands and small tools.

5.8. **Concrete hoses:** The CFA rig has two sets of hoses, the hanging hose and the elevated hoses which are sleeved and changed yearly. The placement and delivery hoses are changed and pressure tested every 30 days.

## 6. Central Piling Requirements

- 6.1. Rochford Construction will provide the following:
- 6.2. Health & safety requirements and welfare facilities with accordance to the CDM 2015 Regulations.
- 6.3. A 360° tracked excavator [Minimum 8 Tonne] & qualified driver to be in 100% attendance.
- 6.4. Install and maintain the working platform when required.
- 6.5. Provide a clean compacted access route to the piling platform for access and egress of the piling rig and delivery vehicles.
- 6.6. Provide a mains water supply [protected from freezing].
- 6.7. Protect the public from the piling works when working close to adjacent boundaries.
- 6.8. The appointed ground workers will complete the wheel washing of all vehicles that exit site.
- 6.9. Rochford Construction to set out all pile positions

## 7. Mobilising on Site

- 7.1. No parking is located on site so deliveries will need to arrive after site is open to unload.
- 7.2. The low loader will arrive along A502 and pull onto the side of the road. The unit will be disconnected from the trailer and parked away from the entrance, protection boards will be laid on the road and when ready the banksman will signal to the rig driver to commence unloading the rig. [RA07 Working on Public Highway]. The rig will be banked off the low loader and on to site, in a position to rig up. The piling rig will be banked at all times while on site by a banksman.
- 7.3. A hi-ab lorry will arrive on site to deliver the concrete pump and auxiliary equipment it will be banked by the banksman into a position to unload. Lorry restraints will be placed around the lorry bed before the banksman climbs on to the lorry. The pump operator will assist [RA09 Mechanical Handling Operations] with the unloading and place the equipment in a designated area making sure it is safe and secure. When unloaded the hi-ab lorry will then be banked off site by the banksman.
- 7.4. A second hi-ab will arrive on site to deliver the container, ramp and compressor, it will be banked into a position to unload. The banksman will assist [RA09 Mechanical Handling Operations] with the unloading of the equipment into a safe and secure location. When unloaded the hi-ab lorry will be banked off site.
- 7.5. A lorry will arrive to deliver the steel reinforcement which will be in 1 tonne bundles; this will be banked on to the site by the banksman. The piling operatives will assist in unloading the steel

- [RA09 Mechanical Handling Operation. RA08 Working with Operating Plant] aided by the 360° excavator and placing it on bearers in the designated area. When unloaded the lorry will be banked off site by the banksman.
- 7.6. A hire company lorry will arrive with the MEWP [Mobile Elevated Work Platform]; it will be banked into a position to unload. When unloaded it will driven to an area off the plot which is safe and secure ready for use. When empty the lorry will be banked off site.
- 8.1. Before the piling rig can commence rigging up the **Working Platform Certificate** must be signed by the Site Manager to confirm the piling mat has been installed as stated in the pile mat design.
- 8.2. When ready the piling rig will be rigged up by the Rig Operator and banksman [WAH001 Working at Height, RA006 Working with Wire Rope] the rear section of mast is held by a prop and the pin and mast bar is removed, the prop is then removed and the rear section is swung round by pushing it into place, the prop then holds the rear section and a bolt and pin are placed at the joint to hold the rear section of mast. The two ratchets are then removed from the mast and the ropes are taken out of the holding hooks.
- 8.3. The Rig Operator will sit in the cab and banked by the banksman will raise the mast till the top section of mast fits into the lower foot section, the banksman will stop the Rig Operator and place two pins with securing bolts into the joint holes. When bolts are fitted the banksman will signal to the Rig Operator to lower the mast back then stop him to remove the travel cradle. When removed the Rig Operator will lower the mast to approx 22° degrees and the tracks will be walked out into working width and travel bars inserted. The slew pin will also be removed. The Rig Operator will then raise the mast to level.
- 8.4. The banksman will attach a shackle and chain to the arm of the excavator and instructed the machine operator to lower the chain over the gate guide, the banksman will connect the chain and instruct him to raise the gate guide and place it in the gates, two bolts will be inserted and the chain will be removed. Repeat the action for the second gate guide.
- 8.5. The MEWP operator will put his safety harness on and attach the lanyard to the rear, he will visual inspect [RA015 Use of MEWP on Site] the MEWP before climbing into the basket and attach the lanyard to the designated anchor point in the basket, he will then start the machine, he will move the MEWP into a position that the ground is stable where he can remove the chain from the raised equipment.
- 8.6. **If the extension bar is required:** The chain on the second line will be lowered under instruction from the banksman and attached to the lifting eye on the extension bar. The banksman will instruct the rig driver to raise the extension bar so it hangs above the drill head, he will instruct the rig driver to lower the extension while he guides it through the drill head and rests the extension on the ground. The MEWP operator will then raise the basket of the MEWP into a position to remove the chain, he will remove the chain and pull the electric cable from the reel and lower it down to the banksman to connect the plugs together. The banksman will then instruct the rig driver to lower the second line and attach the hook on to the reaction bar, when ready he will instruct the rig driver to raise the bar over the spectacle on the extension bar. The MEWP operator will help guide the reaction bar through the spectacle while the rig driver lowers it, when has been lowered to the drill head the banksman will guide it into eye sockets on the drill head and down into the final socket where a pin is inserted and secure using a clevis pin. The MEWP operator will then remove the chain from the reaction bar and slew the basket away from the rig ready for the augers.
- 8.7. The rig the first of three flights of 6m auger will be connected below the head this done by a chain sling being placed three flights down the auger and then placed in the swivel hook on the second line, the second line is lifted slowly lifting the flight of auger into place, the auger is shut in the gates guided by the Banksman. The Rig Driver will then lower the head guided by the Banksman into the coupling on the auger, when connected the MEWP operator will slew into the rig and place two auger pins in the coupling and tie wire the ends, he will then remove the

- sling chain from around the auger and will then slew the MEWP away from the rig and wait for the next auger. This procedure is completed till all the flights are connected.
- 8.8. **Emergency recuse procedure:** If a problem occurring with the operator while the operator is at height, before operating the MEWP the banksman will show the rig driver [if not qualified] the ground controls and instruct him how to operate the MEWP if a problem occurs. If the basket is unable to be lowered to the ground because of a hydraulic hose or engine failure the emergency services will be phoned to rescue the operator.
  - 8.9. When all augers have been connected the MEWP will be driven to an area which is secure and the operator will remove the lanyard from the anchor point, he climb down from the basket and go to the ground controls and lift the boom into a raise position and stop the engine and remove the key.
  - 8.10. **Safety Procedure: When connecting augers to an auger string the rig driver will always connect the couplings by forward spinning the auger to line up the pin holes at NO TIME WILL THE HEAD BE BACK SPUN. While connecting the couplings the MEWP operator will keep his hands well away until signalled by the rig driver that the couplings are together.**
  - 8.11. Concrete pump will be placed in front [**RA012 Mechanical Handling Operations**] and has good access for the concrete lorries. Metal and rubber hoses will then be attached together [**RA10 Manual Handling Operations**] using hoses clamps and secure using clevis pins, to the required length then the hoses will be connected to the piling rig. Large whip checks will be placed on all couplings between metal and rubber concrete hoses which are above ground level.
  - 8.12. **Safety Procedure: A moveable cross over ramp with movable barriers is provided for protection to the placement concrete hoses on site, if any plant or vehicles need access across the hose the ramp can be placed by lifting it with the excavator, hard core can be place either side of the ramp if required. AT NO TIME IS TRAFFIC TO BE DRIVEN OVER THE PLACEMENT HOSES WITHOUT PROTECTION. Continual traffic movement over unprotected hoses will cause damage to the concrete hose which will result in an accident or incident occurring.**
  - 8.13. A designated wash out area will be constructed by using either polythene or soil to make a bunded area for concrete lorry wash out and wash out at the end of the shift. This will be tidied daily.
  - 8.14. Mould oil will be sprayed [**COSHH 010 Mould Oil, RA013 Use of Mould Oil**] onto the concrete pump to help stop the concrete sticking.
  - 8.15. The Piling Rig, Concrete Pump, MEWP and Compressor will be checked daily for engine oil, hydraulic oil, water and diesel levels and topped up when necessary [**COSHH 006 Gas Oil, COSHH 007 Oils and Greases, RA03 Gas Oil, RA04 Oils and Greases**]. A spill kit will be position near the topping up procedure.



## 9. Fabricating Steel Reinforcement

- 9.1 The Cages will be made on site by Sub-Contractor Steel fixers.
- 9.2 The banksman will place a shackle and chain on to the arm of the excavator and instruct the machine operator to lower the chains over a bundle of steel, the chains will be wrapped around the steel [See Lift Plan] [or the one use nylon sling will be used to lift the bundle of steel] the banksman will instruct the machine operator to place a bundle of steel reinforcement [RA10 Manual Handling Operations] on to cage stands. [A safety line will need to be used if moving long steel] They will remove the required number of bars from the bundle and feed a helical around the bars they will then tie the bars to the helical using tie wire.
- 9.3 When completed they will remove the cage from the stands and place it on the floor.
- 9.4 If making heavy cages, chains will be fitted to the excavator and attached to the cage and the cage will be moved off the stands by the machine operator instructed by the banksman and placed in the designated area.
- 9.5 Repeat 9.2 to 9.4 till right number of cages are completed.

## 10. Priming the Concrete System

- 10.1. The concrete lorry will arrive on site and be banked on to the pump by a banksman. The pump operator will pour most of the grout into the T piece going to the rig then he will attach the blanking end with a clamp and secured with a clevis pin, he will then place 2 buckets of grout into the hopper on the concrete pump. [RA05 Use of Prime-a-Pump, COSHH Prime-a-Pump] Whip checks will be placed from all metal to rubber hoses.
- 10.2. The lorry driver will start discharging the concrete [RA02 Use of Wet Concrete, COSHH 004 Concrete] into the hopper of the pump when instructed to do so by the pump operator, the pump operator will check the change over valve and start pumping to the rig, once the banksman has confirmed the pipes are grouted up the pump operator will stop and when instructed to continue pumping concrete through the hoses until the pile is filled.
- 10.3. When the concrete lorry is empty the pump operator will stop pumping and instruct the lorry driver to wash out in the designated area. When washed out the concrete lorry will be banked off site.

## 11. Piling Operations

- 11.1. Rochford Construction will issue a permit to dig.
- 11.2. The piling rig is moved round site with a banksman banking it at all times.
- 11.3. When working close to the site boundary make sure that no vehicles are parked close to the opposite side of the hoarding. If there are inform the site manager that these need to be moved or protection needs to be erected to protect them from damage before work commences.
- 11.4. The banksman will bank the rig over a pile position, when in position he will tell the rig driver to level up.
- 11.5. The banksman will place a setting out ring over the pin position and then remove the pin.
- 11.6. The rig driver will then level the rig and wait for instructions from banksman.
- 11.7. The banksman will then bank the auger over the setting out ring and signal to the rig driver when it is in position. The banksman will then instruct the rig driver to raise the head and remove the ring.
- 11.8. The rig driver will lower the foot to stabilise the rig.
- 11.9. [First pile of the day only when grouting the system]. The rig driver will then make sure the area in front of the rig is clear and signalled to the pump operator to commence pumping when concrete appears out of the bottom of the auger the rig driver will signal to the pump operator to stop pumping.

- 11.10. The banksman will instruct the rig driver to lower the head so the auger is on the ground. The banksman will check the teeth of the auger before starting each pile, if they need replacing he will signal the rig driver to raise the drill head and replace the teeth.
- 11.11. The banksman and pump operator will prepare a cage by placing de-bonding and a set number of spacers on to the helical and then moving the cage into position for lifting. [RA10 Manual Handling Operation]
- 11.12. The rig driver will check the pile number then input the pile number into the rig computer system then he will commence drilling down to the required depth.
- 11.13. The banksman will only open the gates when the rig driver stops rotating the auger. He will keep close watch on the concrete hoses and hydraulic hoses as the drill head lowers making sure they do not get snagged.
- 11.14. When at depth the rig driver will then signal to the pump operator via the banksman to commence pumping.
- 11.15. **Safety Procedure: If during the pumping operations a tip blockage should occur in the concrete system. The pump operator will back pump the concrete pump and try pushing the system again. If the blockage does not clear he will then cease pumping and back pump at least 8 times. The augers will be back rotated out of the bore until the tip can be accessed and the blockage cleared. The pile will be over drilled by approx. 100mm beyond designed depth.**
- 11.16. As the auger is extracted concrete is pumped down the centre of the auger. The augers will be cleaned during extraction by the flail cleaner and the star wheel once the gates have been closed.
- 11.17. **Safety Procedure: No spoil is to be left on the auger above the auger cleaners. If spoil remains after going through the auger cleaner the pump operator is signalled to stop and the rig driver will drill the augers back into the brushes till the spoil is removed. If the spoil is still present on the auger the auger will be drilled back into the pile to loosen the clay, if spoil is still present the excavator operator will be instructed to break the spoil with his bucket under instruction from the banksman. At no time should an operative use his hands to remove spoil.**
- 11.18. When clear the rig driver will signal to the pump operator via the banksman to commence pumping.
- 11.19. When at top of pile the rig driver if concrete is showing will signal to the pump operator via the banksman to stop pumping.
- 11.20. The rig driver will lift the foot and jib back the mast then be banked by the banksman back from the pile.
- 11.21. The banksman will then instruct the excavator driver to remove the spoil from on top of the pile. The arisings will be moved away from the piling operation via excavator and dumper (if possible) to be stored for removal off site.
- 11.22. The pump operator will clean out the top of the pile [RA02 Use of Concrete wet, COSHH Concrete] using a graft, while the banksman attaches a shackle and chain [see Lift Plan] to the arm of the excavator. The banksman will then instruct the excavator operator to lift the cage and place it over the pile. The banksman will then instruct the machine operator to lower the cage into the pile assisted by the pump operator till the cage is at ground level. If required the chain will be removed and the excavator driver will be asked to tap the cage down to ground level. The cage will then be centralised.
- 11.23. Repeat 11.4 to 11.22 till job is complete
- 11.24. The cage will be inserted in the pile as 11.22. No piles will be left open without protection.

## 12. Concrete Pumping & Deliveries

- 12.1. Concrete will arrive at intervals throughout the day and be banked on to the pump by the pump operator. The pump operator will check the concrete ticket and slump of the concrete before use.
- 12.2. The pump operator will instruct the lorry driver to discharge in to the pump.
- 12.3. When the concrete lorry is empty the pump operator stops pumping.
- 12.4. When empty the concrete lorry will then be banked over to the designated clean out area to wash out.
- 12.5. The concrete lorry is then banked off site by the pump operator.

## 13. Cleaning the Concrete System

- 13.1. Any remaining concrete will be pumped through the system.
- 13.2. The pump operator will back pump the concrete pump a minimum of 8 strokes to reduce the pressure in the concrete system, he will then release the first concrete clamp after the metal pipe work and when released he will bend the concrete hose in half to stop the flow of concrete.
- 13.3. The banksman or rig driver will assist the pump operator in placing a hard ball in the ball blower and attaching to the ball blower using a clamp and clevis pin to the released concrete hose on the floor.
- 13.4. The compressor will be started and a compressor hose will be fitted to the rear of the ball blower and the other end attached to the compressor. Whip checks will be used on both connections.
- 13.5. The piling rig will be banked into a position to blow out and a blow-out drum will be placed under the auger and the auger lowered inside. A board will be placed in front of the opening of the blow out drum and the machine operator will be instructed to place his bucket on the board.
- 13.6. The rig driver will then position himself in a safe area to stop anyone approaching the rig and signal to the banksman to open the outlet valve on the compressor. [**CFA1 Cleaning CFA Concrete System**]
- 13.7. When the hard ball has blown through the concrete system the rig driver signals to the banksman to shut the outlet valve on the compressor.
- 13.8. The ball blower is removed from the concrete hose and water is poured in, when completed 2No. blow out balls will be placed into the concrete hose, the ball blower will then be attached by clamp and clevis pin to the concrete hose. The rig driver will again position himself in a safe area and stop people approaching the rig and signal to the banksman to open the outlet valve, when both blow out balls have blown through the system the rig driver will signal to the banksman to close the outlet valve.
- 13.9. The rig driver will instruct the excavator driver to remove his bucket and the board will be removed and stored off the plot. The blow out balls will be retrieved and cleaned and placed in the water butt.
- 13.10. **Safety Procedure: If a large amount of placement concrete hose is being used the rig driver can blow out in three stages using the T-piece situated on the side pipework on the piling rig. This will reduce any blockages as the concrete hoses are being blown out in shorter sections.**
- 13.11. If a blockage in the concrete system occurs while blowing out, the compressor will be turned off and the outlet valves opened to release the trapped compressed air, the outlet valve on the ball blower will then also be opened controlling the release [**CFA2 Unblocking the concrete system**] of any trapped air. Once all air has been released a decision will be made as to where the blockage has occurred. An operative will place a full head visor over his face before remove the clevis pin from the clamp and at arm's length open the clamp arm; all other site operatives will be a minimum of 5 meters away from the blockage area. If air is escaping when the arm is open the clamp will be left until no pressure is heard, again at arm's length the operative will

commence opening the clamp. When the clamp is off the blockage will then be cleared. The pipe will then be reconnected with the clamp and secured with a clevis pin, before blowing out can commence.

- 13.12. The rig driver will raise the auger and be reversed by the banksman away from the area. The blow out drum will be removed and placed at the side of the plot and the excavator will clean up the blown out concrete.
- 13.13. The ball blower will be removed and a hard ball inserted, it will then be attached by a clamp and clevis pin to the concrete hoses. The pump operator will signal to the banksman to open the outlet valve on the compressor, when the ball has blown into the holding drum the pump operator signals to the banksman to close the outlet valve, the clamp is released and water is poured into the concrete hose. When full a soft ball is placed in the ball blower and it is connected to the concrete hose by a clamp and clevis pin, the pump operator signals to the banksman to open the outlet valve, when the soft ball has blown through the system the pump operator signals to the banksman to close the outlet valve.
- 13.14. The banksman turns off the compressor and releases the clevis pin and clamp and washes the ball blower, when clean the compressor hose will be coiled up and both will then placed in the container.
- 13.15. The pump operator will tidy up any excess concrete under the concrete pump.

## 14. Securing Equipment Daily

- 14.1. The piling rig will be banked in to a designated area to park, the rig will be levelled and the foot lowered on to the piling mat. The rig driver will turn off the rig and remove the keys; he will then lock all the doors on the rig making sure everything is safe then turn off the earth lever.
- 14.2. The pump operator when finished will be assisted by the banksman and place all the metal work on the concrete pump, then place all the remote controls, tools, chains and equipment in the container.
- 14.3. The 150cfm compressor will be chained to the rear of the pump. All site security fencing will be erected if removed by Central Piling before leaving site.

## 15. Plant & Equipment De-Rigging

- 15.1. The rig driver will be banked into a position to de-rig, the MEWP [RA15 Use of MEWP on Site] operator will put on a safety harness, he will start the MEWP on the ground and lower the boom, when lowered he will climb in the basket and attached the lanyard to the anchor point. The MEWP operator will drive the MEWP into a position so that he can swing into the rig.
- 15.2. **Safety Procedure: When disconnecting the auger string the rig driver will at NO TIME WILL THE HEAD BE BACK SPUN. While disconnecting the couplings the MEWP operator will keep his hands well away from the couplings when he has removed the auger pins.**
- 15.3. The rig driver will lower the auger on to the ground and the banksman will open the gates, the MEWP operator will swing the MEWP into a position to remove the auger pins in the coupling, when removed the MEWP operator will signal to the rig driver via banksman to raise the second line, when in the correct position the MEWP operator will attached a sling chain to the auger and on to the swivel hook, the MEWP operator will then swing the MEWP away from the rig. Under instruction from the banksman the rig driver will raise the head and when the augers had come apart will lift the second line and then lower the auger into a position to be collected. This procedure is repeated until all the augers are removed
- 15.4. When the augers have been dismantled the banksman instructs the rig driver to lower the head to the bottom, the MEWP operator will swing in and signal to the rig driver via the banksman to raise the second line, when in position he will attached the swivel hook to the reaction bar and swing away from the rig, a pin will be removed by the banksman at the base of the bar and he will signal to the rig driver to lift the second line, when clear he will signal to the rig driver to

lower the bar on to the ground into a position for loading, the banksman will disconnect the swivel hook. The MEWP operator will swing into the rig and signal to the rig driver via the banksman to raise the second line, when it is in position he will attach the chain to the extension bar and swing away. The banksman will signal to the rig driver to raise the second line and when clear will signal to lower it into a position for loading. The MEWP operator when finished will drive the MEWP into a position ready for collection; he will release his lanyard from the anchor point and climb out of the basket.

- 15.5. The rig driver and banksman will start de-rigging the piling rig, under instruction from the banksman the rig driver will lower the mast to approximately 22 degrees. The travel bars will be removed and stored on the rig, the tracks will be walked in and when in closed position pins are inserted. The mast is then level and the lower section is attached to the travel frame and the mast bolts are removed and stored on the rig. The rig driver under instruction will lower the mast, when fully down 2 ratchet straps will be placed around the mast, a prop will be placed on the side of the mast and the rig will reverse into it. The banksman will then remove the pin and bolt and store on the rig, the prop will be removed and the top section of mast will be swung into a folded position and the prop fitted again, a mast bar will be inserted and a pin and clip inserted, the prop will then be removed and stored on the rig and the rig banked into a position for loading. [WAH1 Working at Height, RA06 Working with Wire Rope].
- 15.6. The concrete pump equipment will be taken apart by the pump operator and placed around the pump ready for loading.

## 16.0 De-Mobilizing from Site

- 16.1. The low loader will arrive at the entrance of the site. The unit will be disconnected from the trailer and parked away from the entrance, protection boards will be laid on the road and when ready the banksman will signal to the rig driver to commence loading the rig. [RA07 Working on Public Highway]. The rig will be banked onto the low loader.
- 16.2. A Hi-ab lorry will arrive on site to collect the concrete pump and ancillary equipment it will be banked by the banksman into a position to load. Lorry restraints will be placed around the lorry bed before the banksman climbs on to the lorry. The pump operator will assist [RA09 Mechanical Handling Operations] with the loading. When loaded the Hiab lorry will then be banked off site by the banksman.
- 16.3. A second Hi-ab will arrive on site to collect the container, ramp and compressor; it will be banked into a position to load. The banksman will assist [RA09 Mechanical Handling Operations] with the loading of the equipment. When loaded the Hi-ab lorry will be banked off site.
- 16.4. A hire company will arrive on site and collect the MEWP; The MEWP will be parked into a position for loading before the crew leaves site. This may take up to 5 working days.

## 17. Environmental Procedures

- 17.1. Central Piling has achieved ISO14001 **Environmental Management Standard** and also has an Environmental policy and is committed to achieving good environmental practice and operating in a sustainable manner.
- 17.2. We will endeavour to minimise concrete waste, prevent pollution and continually improve our environmental activities whilst piling.
- 17.3. We will work closely with Kier to ensure any environmental issues are managed quickly and efficiently.
- 17.4. Drip trays will be placed under all static plant, and any spillages will be collected in spill blankets and returned in blue contaminated bags to our yard for disposal.

- 17.5. All COSHH waste will be placed either in a waste oil drum or a blue contaminated waste bag and returned to the yard for disposal. Central Piling hold a Waste Carriers License No: CB/RM3647HU.
- 17.6. COSHH material containers will be kept in the COSHH container, in the site container or in drip trays while not in use.
- 17.7. Any drains or water courses which are situated close to the piling works will need to be managed by the client to ensure there is no contamination, we will endeavour to prevent any contamination resulting from the piling operations.
- 17.8. Tree branches/bushes need to be trimmed approximately 1.0m away from any pile positions; we will not drill through foliage to construct a pile as this could result in damage to the tree/bush.
- 17.9. Any environmental issues [near misses, spillages, leaking/burst hydraulic hoses] will be recorded as a non-conformance and be discussed in the monthly management committee meeting.

## 18. Quality Procedures

- 18.1. Central Piling have achieved ISO 9001 certificate this demonstrate the necessary skills required to quality manage our activities, products and services. It is also a measure of reliability, consistency and commitment to supply quality to our existing and potential customers.
- 18.2. A pile design and working platform design will be sent to the client prior to the piling rig arriving to site.
- 18.3. A contract supervisor will visit site and produce the Health & Safety RAMs for the contract. On commencement of the contract he will be on site to undertake a quality check sheet before drilling commences. This is to ensure all drawings, pile loadings, mat levels, debonding levels, cubes and test pile information is correct and complete a handover to the site supervisor.
- 18.4. The site supervisor/rig driver will be given a contract file, with all required information for the contract [drawing with piles and depths on]. These are recorded on the daily record sheet in the cab and on the on board computer. After each shift the daily record sheet is sent to the office for logging on CP logistics system which makes sure drilled information is correct [depth, reinforcement and wastage] on all piles.
- 18.5. Cubes are taken (if requested by the client) by a specialized sub contracted company which will be competent in cube taking and testing. These cubes are tested at 7 and 28 days to confirm the strength of concrete. Results are released after testing.
- 18.6. Integrity testing takes place if requested by the client at a minimum of 7 to 10 days after the piles were installed. The client needs to ring the Central Piling office and inform when they will be ready; a specialized company arrives on site and tests the integrity of the pile. Results are released after testing.
- 18.7. Any problems with the quality of our works will be logged as a non-conformance report [**Action Log**] and this will be discussed in the monthly safety, quality, environmental & management committee meeting.
- 18.8. Throughout the contract of work the Contracts Director, Buyer, HSQE & Operations Manager and Contract Supervisor will monitor the production and quality daily.

## 19. Site Specific Information

- 19.1. The site is located within a small area between an existing building and Belsize underground station. There is a private road parallel to the site to Globe Lawn Tennis Club at the rear. Due to the access restraints loading and unloading of materials will cause traffic and pedestrian hazards. Lorries will need to drive off the main road (A502) and back onto site as much as possible as to reduce potential issues.

- 19.2. If transport cannot physically make it onto site, they will park up adjacent to site boundary on Haverstock Hill with materials being lifted off using an 8 tonne excavator/ hi-ab with full time supervision by banksman/slinger.
- 19.3. The tight nature of the site will require forethought and planning on undertaking piles and positioning the rig and equipment as to not cause delays in the programme as so far as reasonably practical.

## 20. Method Statement Confirmation Sheet

All site operatives working for or with the piling team will sign the confirmation sheet below to confirm they will conform to this method statement:

Name:	Date:	Occupation:	Signature:

**This Method Statement was compiled on 14 September 2016 by Kriss Hemming**

Signed:  .....