

# Works Method Statement

## GSS Piling Ltd



	<b>Project Name:</b> 22 Stephenson Way, London, NW1 2HD <b>Principal Contractor:</b> GPF Lewis	<b>Project Number:</b> 23203
	<b>Works:</b> Mini Piling Works	<b>Method Statement Ref.:</b> 00

	<b>GSS Contacts:</b> Health & Safety Manager Operations Manager Site Manager/Rig Operator

	<b>Date of Issue:</b> 27-06-2023  03-02-2023	Rev 01: Address changed and Piling sequence added.  Rev 00: Mini piling			
	01	27/06/2023	Devji Bhuva		
	00	02-05-2023	Devji Bhuva		
	<b>Revision</b>	<b>Date:</b>	<b>Author GSS GE</b>	<b>Reviewed by GSS OM</b>	<b>Accepted by MC</b>

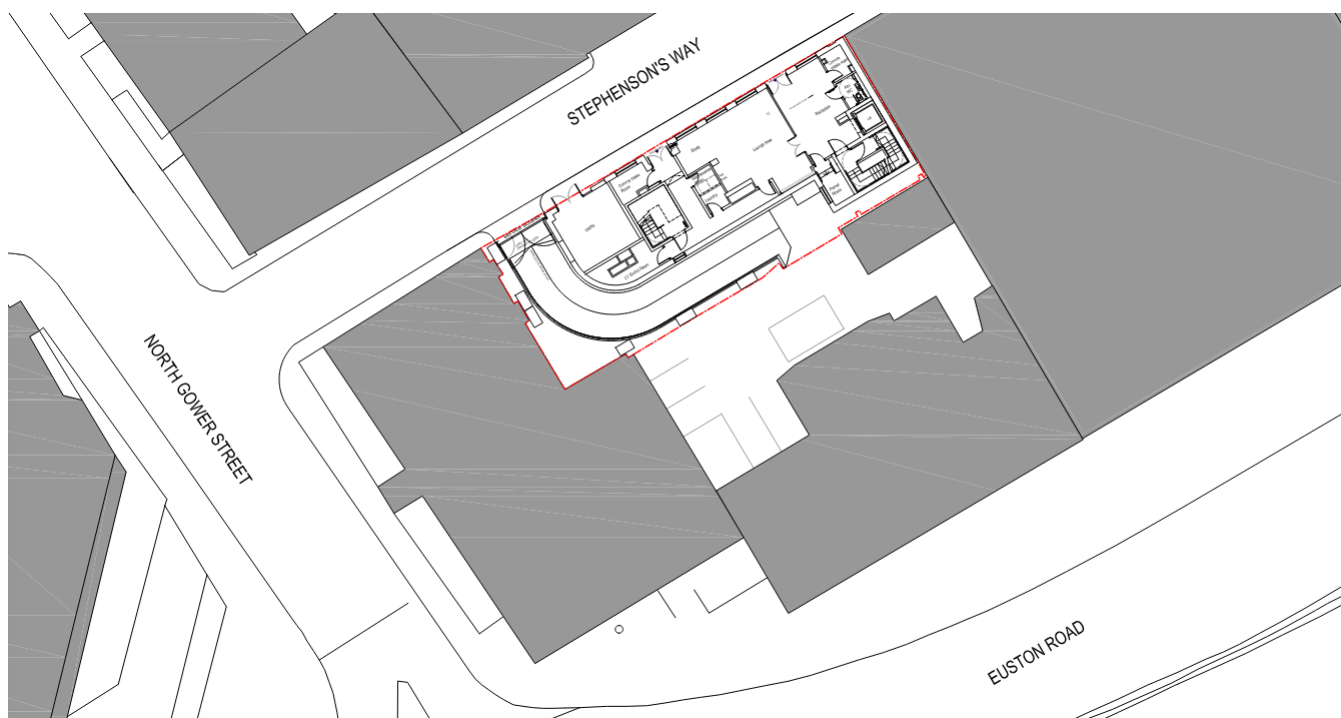
***Any sub-contractor or a third party working in conjunction with GSS Piling under the remit of this document is not relieved of their statutory obligation to provide, monitor, and review their safe system of work and should provide their own method statements and risk assessments. Any revisions to documents referencing this document must be agreed upon with GSS prior to execution with a minimum notice period of 3 days.***

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## 1.1 Site Information

The site address is 22 Stephenson Way, Euston, London, NW1 2HD.



## 1.2 Attendances

The following attendances will be provided by the client:

- Safe access and egress routes to the works.
- Security of site.
- The surveying of ground for existing services.
- Welfare facilities.
- Hoist and goods lift for material removal & import.
- Setting out of the pile positions.
- Removal of spoil from the piling zone.
- Protecting the existing structure where required.
- Suitable piling platform for the Klemm 702 to work on.
- Issue of permit to dig which complies with the FPS requirements.
- Excavator with lifting eye.

The following attendances will be provided by GSS Piling.

- Klemm 702 mini piling rig
- Concrete pump and line
- 3-4 x crew members
- Tools, casings and augers.
- Materials for completing the works.
- Barriers to segregate the work areas.
- Diesel/electric jet wash for cleaning plant.
- All associated hand tools for our works only.
- All PPE required to safely carry out all the above operations.

## **2 Method Statement**

The presence of other trades on site will be a factor to consider in ensuring that tasks can be undertaken safely. Method Statements and Risk Assessments should be reviewed prior to starting each activity to ensure that other trades or site conditions do not compromise the safe system of work. All works to be barriered off for the piling zone.

The attendance crew will also need to be briefed on the RAMS to limit any confusion between them and the piling crew.

Mobile Phone Policy – no mobile phones will be allowed to be used on site, all operatives to use designated areas to use mobile phones. All operators of safety-critical plants to have mobile telephones switched off when operating the plant.

### **2.1 General Sequence/Method.**

GSS Piling Ltd will mobilise to the site on confirmation that the work areas are ready to commence.

The piling mat / platform will have been installed prior to our mobilisation and suitable for the rig to track /work on. This must be signed off and certified before piling operations commence. Any loose or waterlogged ground must be removed before the above is laid. The above must be installed as per TWD.

All pile locations are to be CAT surveyed for live services and any possible services are to be marked and hand excavated by the Principal Contractor to expose and investigate.

The rig will be delivered by a short plant trailer, the in-hole equipment will be delivered by a Hiab lorry capable of lifting off the rear of the lorry to Pentonville Road early in the morning.

The lorries will unload in the designated bay and be as quick as they can, inhole will be delivered at 7.00am day 1 and rig at 11.00am.

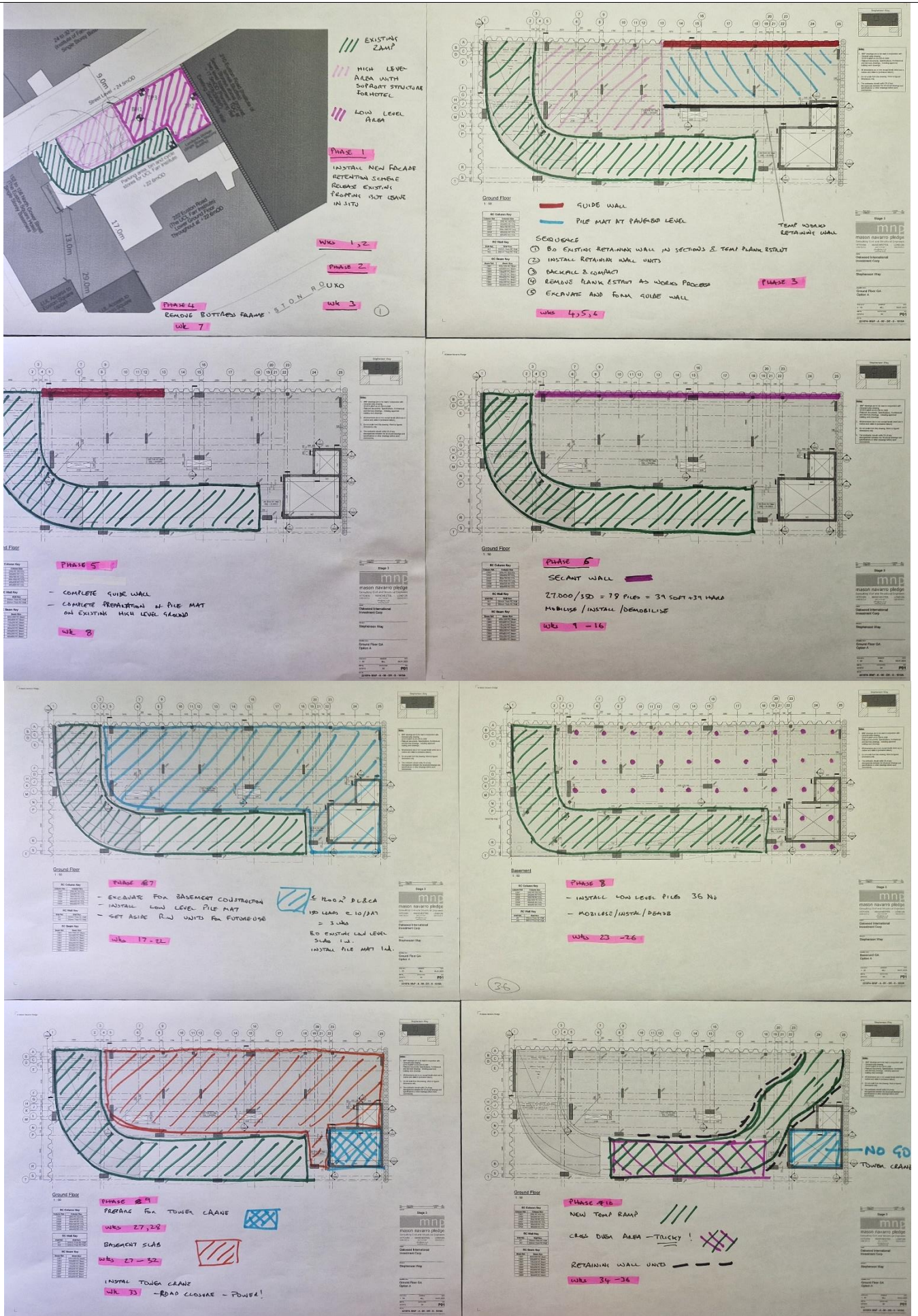
The rig will be offloaded by tracking down from the lorry and into the site. The road and path where the rig will cross will be protected to stop any scuffing from the tracks of the rig, protection will be 18mm plywood to prevent any damage.

The stillages of augers and casings will be offloaded using a Hiab directly off the rear of the lorry and taken into the site using an electric assist pallet truck.

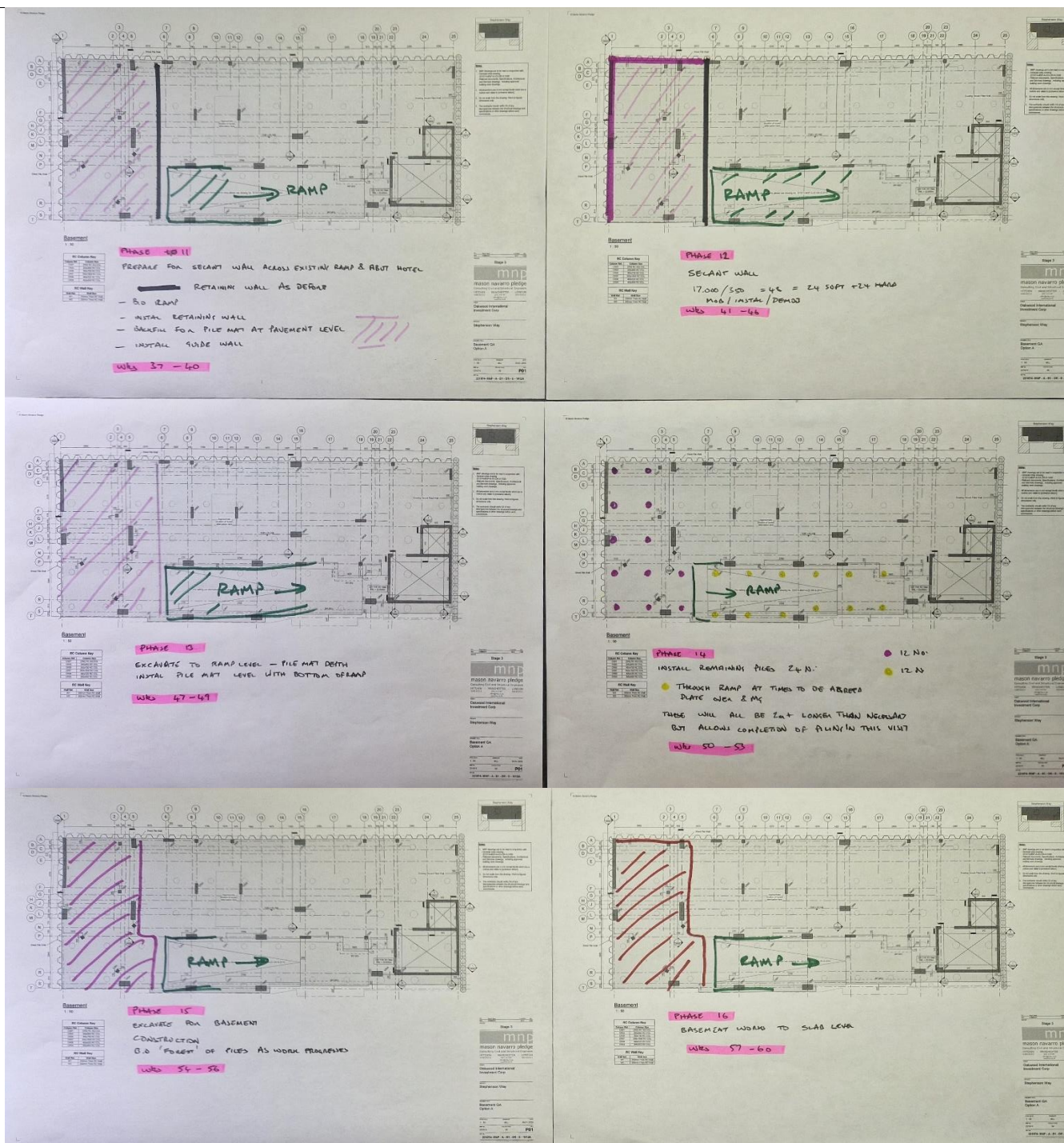
The attending excavator will need to be on site to assist in the transfer of the augers from GF level to the PPL, lifting chains will be supplied by GSS but the excavator will need a certified lifting eye fitted to receive a shackle for the chains to be attached.

Piles will be installed in 4 different visits as identified in the sequence provided. There are bearing piles and contiguous piled wall.









All reinforcing cages will be delivered to the site and unloaded by Hiab. Cages will be stored where agreed with GPF Lewis and only the days production of cages will be taken to the active piling zone.

The concreting zone once set up will be set as a GSS Piling Only Zone, this will be marked by barriers installed with signage.

Once the rig is set up, a signed permit to dig will be issued prior to piling works commence.



#### **Temporary Works Associated with the piling**

Raised platform and guide walls are classified as temporary works. All temporary works will be designed to suit the sequence and the loadings of the piling rig.

#### **Concrete Works**

All piles will be installed using either Case and auger or straight auger method. The concreting works will be carried out using a tracked concrete line pump. This will be tracked and stored in the site each day whilst not in use.

Communication is to be always maintained. No unnecessary operatives are to be within the pump zone at any time.

At no time is the concrete line to be tracked or driven over, if at any time plant needs to cross the line then a crossover ramp is to be used.



Tracked Concrete Pump

The pump and the ready-mix concrete lorry should be parked facing away from each other. Therefore, the pump will need to be parked facing the opposite of traffic flow direction.

All operatives using the concrete pump will be competent and hold a CPCS card for the relevant category. They will have also had familiarisation training.

The piles will be drilled and all reinforced before the concrete is placed.

Communication with the rig operator or Frontman is always to be maintained. The rig operator will communicate to the pump operator when to start and stop pumping.

On completion of the days piling, the pump will be cleaned as per the below sequence. Only the pump operator is to clean the pump and no other operatives are to be in the area. If at any time the hopper grills are lifted, the pump is to be switched off prior to this happening.

- Excess concrete to be pumped to a stockpile area left to harden.
- The line is to be disconnected at the front of the pump and a sponge ball inserted. The hose is reconnected, and the cleaning sequence carried out to clear all concrete from the lines.
- Pump to be stopped immediately if the ball is out of the hose.
- The above process is to be followed until the hose is clear and only clean water is seen.
- The drain bung is then removed from the wash box each night, the water is to be checked and if excessive grout fluid is found to be within the water, then GSS Piling Yard manager/ Fitter to be informed.
- Finally, the outer parts of the pump are to be washed.

The washout is to be left until the following day and cleared as hardcore.



### Piling set up

All items of the static plant will have a fully bunded area below to allow for catching all accidental releases of fluid from the plant. This will be achieved by a bespoke made bund or a proprietary drip tray being placed under the plant. The size will be a minimum of the following: 100% of the liquids within the plant +80%.

All material storage zones will be marked up on the ground and will be kept as clean and tidy as practically possible.

Prefabricated piling cages will also be stored in the agreed area.

A skip is to be provided by GPF Lewis Ltd to dispose of the general rubbish.

Delivery of the piling rig and inhole kit will be to the lower end of site as above. The vehicles will be marshalled into the site by a GPF Lewis banksman and will also be assisted by a member of the GSS Piling team.

### Piling Works

There are various amounts of piles to be installed in the locations shown on the above drawing extract. The piles are located as shown and all spoil arising from the works will be cleared by GPF Lewis as agreed.

The site target is **2 piles** per day. The aim is for the piles to be completed daily by 4.30-5.00 pm.

The piles are being installed using the case/auger method which is extremely low in both impact and vibration. This will eliminate any possible damage to adjacent footings or existing drainage as may be present.

The piling rig will be tracked into the piling zone and set up on a pile position against a pre-planned sequence issued by the rig foreman/site Manager. The pile positions will be set out by GPF Lewis. The rig will be set up over the pile position and checked for positional tolerance.

The piling operational sequence is set out below in full. The pile spoil will be cleared by the attending excavator as stated above and cleared away from the piling zone immediately. The excavator will also have a suitable certified lifting eye on the quick hitch to enable the attachment of a set of chains to assist in installing the reinforcing cages into the piles.

Any rebar projecting from the piles is to be capped immediately on excavation and caps are to be replaced if knocked off or broken.

Rebar cages for the piles will be placed by the attending excavator or manually on final removal of augers and scraping the area clean, so that it is safe to work.

### 2.1.1 Selection of Plant

GSS Piling Ltd will provide all necessary plants to carry out the works. All operatives using mechanical plants will have the required training and/or certification. The plant will include all necessary transport equipment, concrete compaction equipment and hand-held electrical tools.

Piling will be undertaken using a Klemm 702 Mini Piling Rig as pictured below. Rig dimensions are attached below for your information purposes only.

The excavator to be supplied by the attendance crew will require a certified lifting eye on the hitch.



Klemm 702 mini piling rig

Klemm 702 rig specification and details shown below



# KLEMM KR702

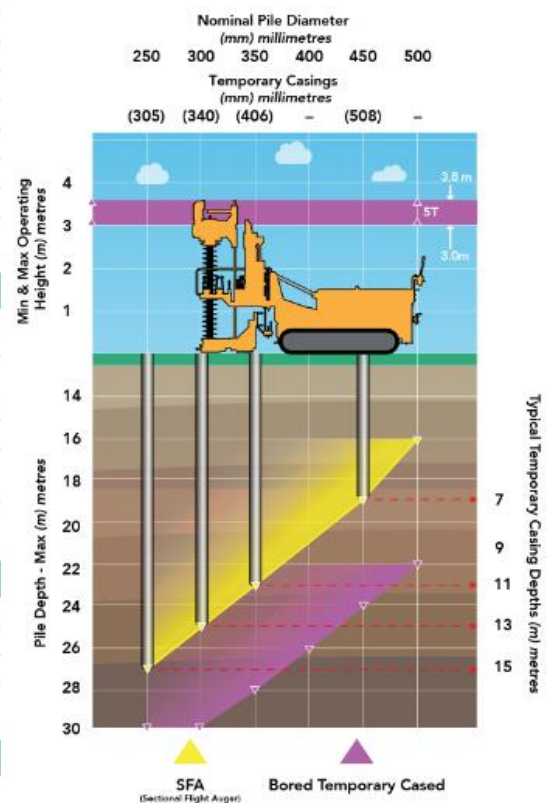
TECHNICAL CAPABILITIES

Rig		
Traction Force max	kN	20
Crawler Speed	Km/h	1,8
2-rib Grouser Plates	mm	200
Overall Width	mm	750(1250)
Ground Pressure	N/cm <sup>2</sup>	7,14*
Length of Crawler Units	mm	1950
Length (Axle to Axle)	mm	1400
Ground Clearance	mm	210

Power Pack	PP95DS	PP115F	PP117G
Diesel Engine	DEUTZ TCD 2012 L04 2V	DEUTZ TCD 4.1 L4	CAT C 4.4 ACERT
Certified	EEC 97/68 EC Stage 3A USA EPA/CARP Tier 3	EEC 97/68 EC Stage 3B USA EPA/CARP Tier 4i	EEC 97/68 EC Stage 4 USA EPA/CARP Tier 4f
Rated Output	95KW	115KW	117KW
Fuel Tank Capacity	150ltrs	250ltrs	280ltrs

Emissions	PP95DS	PP115F	PP117G
CO	0,565 g/KWh	0,059 g/KWh	0,011 g/KWh
NMHC + Nox	3,712 g/KWh	1,694 g/KWh	0,128 g/KWh
Particulates	0,097 g/KWh	0,006 g/KWh	0,014 g/KWh

Weight (tonnes)			
*with Rotary Head KH 20/KH 22	KH20 5.2T	KH22 5.2T	KH25 5.3T
Power pack on wheels/tracked	3.0/3.2	3.1/3.3	3.1/3.3



The performance and depth limitations is clearly subject to the ground conditions encountered, please contact for site specific detail.



# KLEMM KR702

## TECHNICAL CAPABILITIES

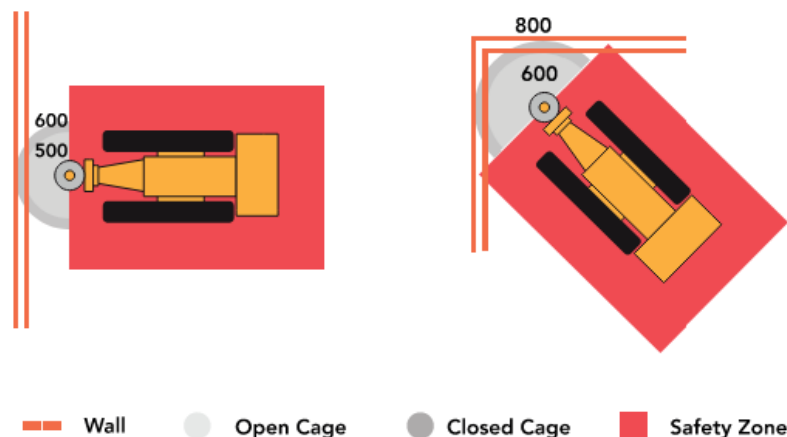
Power Pack	Sound level dB(A)					
	PP95DS		PP115F		PP117	
Noise	Idle	Max Rev	Idle	Max Rev	Idle	Max Rev
2m	74	82	70.9	84.0	70.0	82.0
4m	68	78	63.0	78.1	61.0	76.0
10m	67	73	58.1	71.6	54.0	69.0

Rig	
Transport Dimensions	
Length	2900mm
Width	750mm
Height	2200mm

Loading Details				
Mode	BRE Load Case	Length(m)	Width(m)	Pressure (kPa)
Standing	1	1.385	0.2	83
Travelling	1	1.385	0.2	83
Handling	1	1.385	0.2	83
Penetrating	2	1.20	0.2	72
Extracting	2	1.00	0.2	173

### Typical Rig Operating Distances

Minimum distance from face of wall to centre of pile



Much tighter tolerances can be achieved than indicated above, as tight as 100mm from the face of a pile to an existing wall subject to access and piling rig orientation. Please call us for job specific requirements.



The jet wash will be used to keep all plant clean and free from spoil and concrete.

High-pressure jet washers are to be used carefully and any damage to the discharge hose is to be reported immediately and the jet wash is to be isolated until repaired.



The pallet truck will be used to move the stillages of augers and casings from the pavement to the inside of the building.



The concrete pump adjacent will be used for pumping the ready mix concrete.

At the end of each day, any spillages of the concrete will be cleared out after the pump lorry has left the site.

The pump is to be started and checked and greased before the piling pours commence each day. All mechanical operations including

movement of the mixing hopper are to be checked.

The pump requires a grout/primer liner to be run through the lines before the concrete can be pumped through, the grout/primer acts as a lubricant.

Communication will be via 2-way radios.

Both the pump operator and the piling foreman are to keep a continual watch for blockages within the pump lines. If the pump lines become blocked, then the operator is to place the pump in to reverse to release the pressure from the lines. Once this is done the operator is to slowly release the clips on the joint and then free the 2 parts of the line. If at any time the operator feels there is still pressure in the line, then the clip should not be released until the pressure has had a chance to disperse.

Once the blockage has been cleared the pipeline is to be installed with the safety pins through the clips again.

The pump will be cleaned at the end of the concrete pour. The excess concrete and concrete wash out is emptied into a sump tray which is placed under the hopper. The sump tray is emptied the following morning onto the waste concrete pile.

**A separate concrete pumping procedure will be issued by GSS Piling will be briefed onto this and sign to confirm understanding by the pump operator.**

## **2.2 Deliveries & Traffic Management**

All vehicles are to follow the designated logistics route to and from the site.

All deliveries will be called in as just in time deliveries due to the restricted nature of the site.

All lorries that are to be unloaded will be marshalled by a GSS operative/Traffic marshal within the site only and under no circumstances are the lorries to be unloaded unattended.

The delivery zone needs to be cleaned daily.

All deliveries will adhere to instructions given by the site team and any deviations will be relayed to the site team as soon as practically possible.

All drivers are to contact the site team before arrival.

There is a 48-hour notice period for any delivery vehicles. Therefore, all deliveries need to be booked in advance with 48 hour notice.

### **2.2.1 Storage and protection**

All protection works to the surrounding buildings and the footpaths and road are to be carried out by GPF Lewis to be suitable for the piling rig to travel/work on.

Storage areas are to be agreed upon with the on-site management team/GSS Piling Foreman and all materials are to be stacked and left safely overnight. The concrete pump zone and material storage areas will need to be set and stay as fixed as possible during the contract period.

All storage areas that are required to be changed from the originally agreed, will require a minimum of 72hrs notice so that the site team can run down the stock of materials.

## **2.3 PILING OPERATIONAL PROCEDURES – Case and Auger**

Augers and casings for all rigs to be lifted on and off via the onsite excavator where possible to minimise any manual handling. The stillages of augers and casings will be offloaded using a Hiab and taken into the site using a pallet truck.

### **Setting Up of Rig On A Pile Position**

- The rig is to be positioned adjacent to the pile peg/marker and the ground around the peg is to be checked for stability.
- The surrounding area is to be checked for overhead obstructions. If the headroom above is very restricted, all pipework and cable trays have been diverted by others. Measurements will be taken prior to the set up and levelling of the mast.
- Once the above has been carried out the mast will be tilted vertically by the operator from the control arm side of the rig. At no time during this operation is the frontman to place himself in the blind spot to the front of the rig.



- The frontman will indicate to the operator via either hand signals or verbally until the mast is vertical in both planes. Again, as mentioned previously, the front man is not to put himself between any part of the mast or rig where a crush injury could occur.
- Once the mast is set up vertically, the head is to be travelled up and down to ensure it is clear of all points and does not clash with anything.
- The marker peg is then removed from the ground prior to any drilling operations commencing.

### Drilling operations Case and Auger

- On completion of the above setting up procedure the drilling operations will commence.
- The safety cage will be opened by the Frontman and will be controlled only by the Frontman not the operator. This will be done for every auger or casing to be installed and closed before the rotation unit is engaged.
- A lead casing will be lifted into the clamp foot with the attached cat head on the rig or via the attending excavator. The lifting of the casings and augers will be controlled by the Frontman on the rig.
- The casing will be detached from the lifting tackle and secured by the clamps of the rig. The sub will then be rotated to match the hole alignment of the casing. **At no time is the frontman to place anything inside the hole of the casing especially fingers.** If the drive bar does not line up properly then the bar is to be tapped in with a hammer. The drive bar will be inserted from the operator side and if required the casing can then be spun back to give the operator a clear view of the drive bar.
- The lead casing will then be rotated in to the ground and re-clamped at a low level and the drive bar removed. The head of the rig is then lifted up and the slide operated to move the head out the way to achieve installation of the augers.
- The lead auger is then placed within the casing as above lead casing but lifted in with the specially adapted lifting bale. The bale is detached by removing the top pin and then the head of the rig is attached to the auger. **It is essential that the top pin is in position when augering commences for each auger in turn.**
- The lead auger is then rotated into the ground until the hex drive of the auger is just above the casing and the top pin is removed. At this stage a second auger is installed as before and connected on to the hex drive of the lead auger. The pin is then inserted to connect the lead and second auger. Once the pin has been driven in with a hammer the pin joint will be secured with a piece of tie wire.
- The augers are then connected to the head of the rig again and rotated into the ground. At low level the augers are stopped the cage is opened and the top pin is removed. The augers are then rotated down so that the hex drive is below the casing drive and the head is detached by joggling the rotation.
- Grease is then applied to the top of the casing thread by a tar brush each time to lubricate the next casing being threaded on.
- A second casing is then attached to the lead casing and the sub is connected as in stage 1 above for casing installation.

- The above sequence is then followed until the casings achieve seal into the underlying clay.
- On achieving seal the augers will then only be inserted leaving the casings sealed in to the clay and clamped by the rig. Auger installation will then cease at the required design depth.
- The removal of the augers will require the cage to be open and this will require extra care on behalf of the rig operator.
- If the Frontman requires to work on the blind side of the rig, then the operator using a safe agreed method of communication will take their hands off of the levers and only re-engage the levers on instruction from the frontman. Ideally all work needs to take place where the operator can see the Frontman.
- The augers are raised by the head of the rig and the auger plate is placed in just under the joint of the auger. The weight of the augers is then transferred from the rig to the plate. The pin wire is then removed, and the pin hammered out. The auger is then lifted and detached from the lower auger until the hex joints are clear.
- The head of the rig will then be slid over, and the auger taken down and rested on the side of the auger plate. At this stage the top pin is removed, and the auger is detached from the sub of the rig. The head is then lifted clear, and the auger will either be attached to the lifting bale and removed with the excavator or control dropped to the ground.
- If controlled dropping of the auger is to take place, then there needs to be sufficient room around the rig for the frontman to step away once the auger is dropped. At no time is the Frontman to stand in a crush zone or try to catch a falling auger.
- Each extracted auger will be removed from the immediate piling zone before the extraction of the next auger.
- The above sequence will be used until all augers are retrieved from the pile bore.
- The pile cage is then installed by the piling crew as per main RAMS and the pile is filled with either grout or concrete.
- The casings will then be ready for removal. The casing is connected to the sub of the rig as above and raised until the joint of the casing is just above the clamps.
- The sequence of removal will then follow that of the augers above. If at any time the casing is overfilled with concrete the this will be cleared using a shovel to allow a full view of the drive bar hole. At no time is the Frontman to place his fingers in the drive bar hole or arms inside the casing to clear any spoil or overfilled concrete.
- If at any time the above sequence cannot be achieved, then all work is to cease and the GSS Piling Manager is to be contacted.

It is envisaged that due to the severely restricted nature of this site the cage will have to be removed and the crew will be briefed fully on the below procedure. The working zone for the rig is restricted for access to just GSS piling crew members and no other operatives are permitted to enter if the rig is working unless permission is sought from the drilling foreman.

## 2.4 Guarding of Piling Rig

The default situation is that the guarding to the front auger area of the piling rig must be in place with full safety devices fully operational to ensure that no one can reach the augers when turning.

Owing to the position of some bearing piles being close to the wall, locally it will not be possible to operate the piling rig with the guarding in place fully.

The following Hierarchy of Control is to be used and briefed with the aid of the VTS below.

Scenario 1: - This is the default for the piling in normal conditions.

Scenarios 2 and 3: - These 2 scenarios will require crowd control barriers positioned to the side or the front of the rig as detailed in the VTS below. The following will also need to be implemented.

If scenarios 2 and 3 are to be undertaken on site, all other options are to be exhausted first.

- Can the pile position be relocated to suit the safety cage?
- Can the piling rig be positioned in a different direction?
- Can the pile be redesigned to a smaller diameter to suit a smaller rig?

If after running through the above, scenarios 2 and 3 are still the only option then this is to be relayed and communicated in the following order.

- GSS Operations Manager (By GSS site manager/foreman)
- GSS Health and Safety Manager (By Ops Manager)
- On site Senior Management from GPF Lewis (By GSS Ops manager or site manager/foreman)

After agreement from all parties above the entire site team including all rig and attendance crew are to be briefed on the scenario to be used.

This is to be recorded as part of the DABS or a single task briefing if the change is required during the middle of the shift.

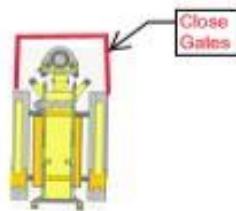
All following piling works are to be programmed to ensure that scenarios 2 and 3 are only used for the minimal amount of time required.

As soon as it is practicable, scenario 1 is to be reinstated and the crew and attendance team re-briefed again.

If the above or below scenarios cannot be achieved or if there is a change in site condition, then all work is to be stopped until it can be re-assessed.



**Scenario 1**  
Open Site - Gates fully close



**Scenario 1**  
Safety circuit 1

Full Gates

- Magnetic gate lock on Automatic
- Normal safety modes all working
- Operator can use inching button

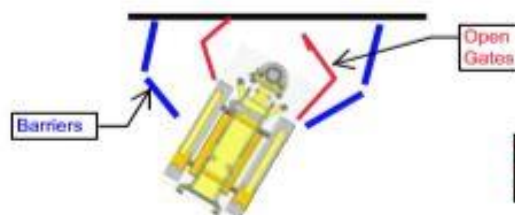


Photo - Drilling Gates Closed - Circuit connected



Photo - Forced inching mode - limited movement on drilling controls when gates are open

**Scenario 2**  
Restricted Site - Gates partially open



**Scenario 2**

Safety circuit 2  
Partial/No Gates

- Magnetic gate switch isolated
- Rig front barriered off
- Inching mode off while drilling with open gates
- Frontman arm safety system activated along with traffic lights system



Photo - Magnetic gate switch isolated



Photo - Inching mode off with gates open while drilling

Frontman able to stop rotary movement using the frontman arm system and then Operator will manually switch inching mode on



Red light - no access to rotary

Green light - access for frontman to rotary, inching switches on

Frontman safety arm system

### **3 Health, Safety & Environmental Considerations**

#### **3.1 Manual Handling:**

A manual handling assessment is attached to this document.

#### **3.2 Main Suppliers and COSHH**

Our main suppliers will be:

- Reinforcement Bars – Lemon Ground Works or Thames Reinforcement.
- Ready mix concrete – Cemex.

A list of materials below indicated which of materials are likely to be used for these works, COSHH assessments and material Safety Data Sheets for these will be kept on site.

- ☐ Asphalt
- ☐ Brick Cleaner
- ☐ DEB Pure Hand Wash
- ☐ DEB Swarfega Orange
- ☒ Dry Cement Powder
- ☐ Expanding Foam
- ☐ Formwork retarder - Aquatard
- ☒ Fuel Oil
- ☒ Grease (Turntable)
- ☒ Hydraulic Oil
- ☒ Mould Oil
- ☒ Primer Pump
- ☒ Readymix Concrete/Grout
- ☐ Resin - ADI Polyester
- ☐ Resin – Hilti HIT 500
- ☐ Sika Accelerator
- ☐ Silicone sealant
- ☒ Soft Wood Dust
- ☒ Survey Line
- ☐ Unleaded Petrol

#### **3.3 Hand Arm Vibration**

Use of vibrating equipment is to be minimised wherever possible by use of mechanical plant.

The plant and tools we use have been selected as being the best compromise between performance, vibration levels and cost to reduce the exposure of operatives to potentially harmful vibration.

Where hand operated vibrating plant is required the GSS Site Manager/Foreman will monitor and record using GSS HAV record sheet. Information regarding the equipment vibration levels will be held on site. Copies of records will be issued to the main contactors on a weekly/monthly basis, along with associated toolbox talks and additionally reiterated within on-going task briefings.

### 3.4 Noise

Initial noise monitoring is to be carried out and reviewed as the tasks being undertaken change throughout the job. Soundproofing on the Klemm 702 guarantees a very low level of 82 DBA at 2.0m meaning that the rig is ideally suited for the application of urban job sites. Full levels are shown below.

Klemm KR702 – Power Pack	2.0m	4.0m	6.0m
	Idle: 74	Idle: 68	Idle: 67
	Max Rev: 82	Max Rev: 78	Max Rev: 73

Action levels are:

- 80dB(A) is the Lower Action Value – hearing protection should be offered and additional methods to remove, reduce and prevent exposure should be assessed.
- 85dB(A) is the Upper Action Value – hearing protection zones set up, hearing protection to be worn at all times in these zones.
- 87dB(A) is the Exposure Limit Value (include SNR value of hearing protection). Daily exposure never to exceed a time weighted average of this value.

Noise assessments will be undertaken as required and revised as above. The plant and tools we use have been selected as being the best compromise between performance, noise and cost to reduce the exposure of operatives to potentially harmful noise levels.

### 3.5 Dust and Atmosphere

Dust will be kept to a minimum by controlling all works that could create dust.

**Dry cutting of concrete and masonry is prohibited; wet cutting will always be used.**

Whilst the rig power pack is sited outside and venting to atmosphere the situation will be kept under review and fans will be installed if required. Supply of the fans can be discussed if required.

With the plant working in the lightwell areas the ventilation will be kept under review to eliminate any possible build up of fumes or CO<sub>2</sub>.

### 3.6 Spillages

Storage, handling of use of substances must not permit any chemicals to enter the ground or water courses or drainage.

Any person or item of plant causing or identifying a problem will be dealt with as soon as possible to reduce any impact and ensure that harm is limited, and inform the site management of any spills, leaks or incidents relating to spillages so that (if necessary) it can be reported to the Environment Agency (or SEPA).

**FUEL:** The fuel will be kept in a bunded tank on kept on a bund of at least 110%. Refuelling will only be allowed in designated areas with spill kits available and firefighting equipment. Any spillages will be contained and appropriated disposed of. In the event of a spill:

- Stem the flow, divert away from drains, use suitable PPE (e.g. Gloves, safety goggles).
- Surround the spill with absorbent materials (spill kit to be stored in suitable, close to hand position).
- Segregate the absorbent materials used as “special waste” and store in a marked-up container (e.g. COSHH bin)
- If it is a major incident contact the Environment Agency 24hr hotline on 0800 807060, complete form 43.

**Grout:** Grout spillages will be collected, allowed to cure and be disposed of as inert material. Grout must not be washed into drains.

### 3.7 Permits

**Permits Required:** YES

**Permit Type:** Permit to dig, **permit to load for the access ramp**+ Hot Works Permit issued daily by GPF Lewis.

### 3.8 Training of Persons Involved

All personnel will be suitably trained for the tasks that they are to undertake. All operatives will be Health and Safety trained and CSCS card holders. All plant operators to have CPCS cards and the site supervisor will hold an SSSTS as a minimum.

All certification will be sent over to GPF Lewis prior to commencement on site.

### 3.9 PPE

(as per British and European standard)

- Hard Hat EN397
- Safety Footwear EN345
- Hi-vis Clothing EN ISO 20471 – Orange Trousers to be worn at all times
- Gloves EN420
- Eye Protection EN1661349

Additional task specific PPE to be used as per risk assessment.

- Handling cement FFP3 masks
- Ear plugs/ defenders 24-32 Db
- Gauntlets and wellington boots (steel toe cap) concrete pours
- Dual filter dust masks (Task Specific)



### 3.10 First Aid

First aid kit/facilities are to be provided by the Principal Contractor and introduced within the site induction (awareness and communication).

The nearest hospital is

**University College Hospital**

235 Euston Road, London

NW1 2BU

Tel: 020 3456 7890




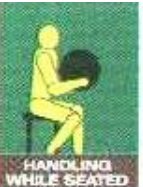

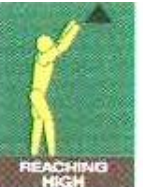



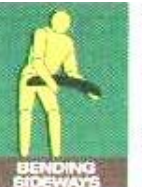


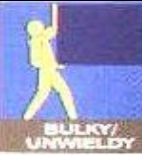













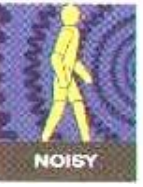











Darren Cook is the appointed first aider for GSS on site.

If first aid is required, then all incidents must be treated and recorded within the site accident book and a GSS Piling Construction Manager must be informed along with the main contractor.

# Manual Handling Operations Checklist (Mark boxes as appropriate, every activity must be marked)

<b>Company:</b>	GSS Piling Ltd	<b>Project:</b> Stephenson Way	<b>Activity:</b> Case and Auger
<b>Materials to be handled:</b>	Reinforcement, 35kg bagged materials 25-10kg, Casings, augers.	<b>Hazardous contents:</b> N/A	<b>Location:</b> Varies

**Can manual handling be eliminated:** No but limited by the use of mechanical aids where possible.

<b>TASK</b>												
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>LOAD</b>												
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
<b>ENVIRONMENT</b>												
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>PERSON</b>						<b>Control measures (Mandatory Section to be completed)</b>  Toolbox talks 'Manual Handling' before works commence and annual manual handling training.						
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>							

<b>Assessor Name:</b>	Paul Burr	<b>Signature:</b>		<b>Date:</b>	14-03-2023
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## Noise Assessment Single Equipment

<b>Project:</b> Stephenson Way	<b>Activity:</b> Case and Auger	<b>Sheet:</b> 1	<b>Completed By:</b> GR	<b>Date:</b> 14-03-2023
<b>Project No:</b> 22290	<b>People affected / at risk of being harmed:</b> (Include 3 <sup>rd</sup> Parties) Operatives in area			

No	Activity	Tools in use	Pre Control Risk Rating High: >85dB Medium: 80-85dB Low: <80dB	Controls Required	Post Control Risk		
					High	Med	Low
1	Piling	Klemm 702	Medium	Ensure hearing protection in use.			x
2	Concreting	Mecbo tracked pump	High	Ensure hearing protection in use. Use the remote and distance operator as far from the engine bay as possible		x	

**Guidelines;**

**80dB(A)** is the Lower Action Value – hearing protection should be offered and additional methods to remove, reduce and prevent exposure should be assessed.

**85dB(A)** is the Upper Action Value – hearing protection zones set up, hearing protection to be worn at all times in these zones.

**87dB(A)** is the Exposure Limit Value (include SNR value of hearing protection). Daily exposure not to exceed a time weighted average of this value.

## 4 RISK ASSESSMENT

### Key to Risk Assessment

Risks are assessed by making a judgement about the severity and likelihood of an event occurring which constitutes the risk associated with the task. The following risk assessment has been carried out using the following descriptions for Severity and Likelihood.

#### Severity:

No Injury	1
Minor Injury	2
> 3-day Injury	3
Major Injury	4
Death	5

#### Likelihood:

Almost Never	1
Seldom	2
Possible	3
Probable	4
Frequently	5

#### Risk Assessment Matrix:

The product of the severity and likelihood equates to the risk as per the table below. Low, Medium and High risks are defined as:

Low	1-6
Medium	7-12
High	13-25

		Severity				
		5	4	3	2	1
Likelihood	5	25	20	15	10	5
	4	20	16	12	8	4
	3	15	12	9	6	3
	2	10	8	6	4	2
	1	5	4	3	2	1



# Risk Assessment

**Nature of work:** Drill and Case Piling

**Risk Assessment Number:** 1

**Project:** Stephenson Way

**Project Number:** 23203

**Assessed by:** Devji Bhuva

**Date:** 27-06-2023

Activity	Hazard	Initial			Control Measure	Residual		
		S	L	R		S	L	R
<b>Deliveries</b> Taking delivery of materials, plant etc.	Injury due to moving vehicles	5	3	15	Ensure warning signs are in place where vehicles might be moving. Provide regular training (toolbox talks) about the risks of moving vehicles. Vehicles to be fitted with reversing beepers. Mobile phone policy. Hi-vis clothing.	5	2	10
	Falls from delivery vehicles	4	3	12	Operatives are not to go onto delivery vehicles unless there is a proper handrail in place, or by using fall arrest block which must be secured at sufficient height above them to be effect.	4	1	4
	Lorry mounted crane offloading - crushing	5	4	20	A competent operator using the lorry mounted crane. Banksman Tethers on lifted plant/material.	5	2	10
<b>Existing Services</b> Excavation/Working in area where existing services may be present	Damage to Services Injury through explosion (gas) or electrocution (electricity)	5	4	20	Main Contractor to mark all services prior to works commencing Consult service plan prior to commencing works. Permit to dig system. CAT scan prior to excavation Scan prior to drilling holes in walls/floors	5	2	10
	Fire as a result of sparks	4	4	16	Hot Works procedures and permits system in use.Task fire extinguisher.Cut away from areas containing flammable materials	4	2	8
<b>Control of Dust</b>	Respiratory Problems	4	4	16	Suppress at source via dampening or use of extraction. Face fitted FFP3 Masks are worn at all times.	4	2	8
<b>Control of Noise</b>	Hearing Loss	4	4	16	Suppress at source via work method. Protection screens or use of ear defenders when above 80Db(a) Hearing action zones where required.	4	2	8

Activity	Hazard	Initial			Control Measure	Residual		
		S	L	R		S	L	R
<b>Abrasive wheels , Breaking Works</b> Cutting of Reinforcement, concrete etc. with rotating blade cutter Breaking brickwork	Injury through debris in eyes	3	4	12	Training to ensure cutting debris being thrown away from face. Goggles	3	3	9
	Injury through the disintegration of wheel	4	4	16	Training Use of correct wheel for the tool in use: diameter, width and bore diameter. Ensure the wheel is attached correctly and tightened with the appropriate tool.	4	1	4
	HAVS	4	5	20	Monitor usage and record. Shift patterns and rotations to minimise exposure. Daily usage is not to exceed 400 HSE points. Limit use to action value where possible Training	4	2	8
<b>Protecting persons not involved in our works</b> Undertaking work close to the public areas, this includes the footpath and other site activities.	Persons entering the work area, causing injury etc.	4	3	12	Ensure site gates are kept shut when not in use to prevent unauthorised access. barriers and warning signs in place.	4	1	4
	Slips, trips & falls	3	5	15	Ensure good housekeeping of the worksite. Open bores to be protected and covered or backfilled. Stick to defined walkways.	3	2	6
<b>COVID-19</b>	Transfer of COVID-19 between operatives and family members. Serious illness or death.	5	4	20	Ensure measures are undertaken as above in section 1.5. Follow CLC guidelines and practice social distancing. Travel by private car and not public transport where possible.	5	3	15
<b>Rig guarding</b> Removal of rig guarding in the event piles are too close to existing structures.	Persons coming into contact with the turning auger	4	4	16	Crowd control barriers are to be placed around the front of the rig to prevent persons from coming into contact with the turning auger. Persons are only allowed to access the front of the rig when the auger has stopped turning. Driller to step away from the controls when a person is required to access the front of the rig. Driller to inform the front man that it is safe to access the front of the rig.	4	1	4
<b>Rig movements</b>	Crushing	4	4	16	Only trained banksman / Frontman to direct the rig operator when tracking. Other operatives to stay out of the way and in sight of the rig driver. Barriers to be erected around the work area to prevent others from entering.	4	1	4

<b>Case and Augering</b>	Entrapment	4	4	16	Only frontman to be permitted in front of the rig. Safety cages to be always closed when possible. Chapter 8 barriers to be used if auger cages cannot be closed, Frontman and rig driver to have a sighting of each other always. Under no circumstances is anyone permitted to enter the exclusion zone when the augers are rotating.	4	1	4
<b>Lifting of Augers and Casings.</b>	Crushing/back pain.	3	3	9	Only trained frontman to remove augers and casings. Casings and augers to be stored on level ground. Keep the area clear when removing casings or augers. Do not place hands or fingers into casing holes.	3	1	3
<b>Cage insertion</b>	Entrapment	3	3	9	Do not place hands inside the cage. Use a trapping bar under the welded ring. Use additional persons to lift the cage into the bore.	3	1	3
<b>Concrete works</b> Pouring site mixed Grout	Grout burns	4	4	16	Training to ensure awareness of grout burns Ensure that welly boots, rubber gloves and safety glasses are worn for grouting. Be fully covered while grouting. Ensure clean water is available on site to immediately wash any grout from the skin	4	2	8
	HAVS	4	5	20	Monitor usage and record. Shift patterns and rotations to minimise exposure Daily usage not to exceed 300 HSE points Training	4	2	8

	Re-fuelling plant and filling bowser	3	3	9	500L double banded bowser to be placed on site and filled by a tanker. Spill kit and firepoint to be kept next to the bowser at all times Plant will be filled directly from the Bowser or by a 20L drum when needed. Any spills will be cleaned up with either the nappies or with granules immediately and disposed of in the cosh waste bin. All tanker deliveries will be booked in 48 hours in advance and the traffic marshal and banksman will supervise the filling and shut the footpath on Pentonville Road for the hose to be laid whilst refilling the bowser.	3	2	6
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**SEVERITY****LIKELIHOOD****Review Date:** Every 6 weeks**Assessor Signature:**

No Injury	1	Almost Never
Minor Injury	2	Seldom
3-day Injury	3	Possible
Major Injury	4	Probable
Death	5	Frequently





<b>Project Location:</b>	Stephenson way
<b>Principal Contractor:</b>	GPF Lewis
<b>Method Statement:</b>	PILING

 <b>Great Britain</b>	By signing below I confirm that I have a clear understanding of the briefing as above.
 <b>Hungary</b>	Aláírássommal megerősítem, hogy a fenti tájékoztatást teljes mértékben megértettem.
 <b>Latvia</b>	Zemāk parakstoties, es apliecinu, ka skaidri saprotu iepriekš izklāstīto instruktāžu
 <b>Poland</b>	Składając poniżej swój podpis, potwierdzam całkowite zrozumienie powyższych wytycznych
 <b>Russia</b>	Ставя свою подпись ниже, я подтверждаю, что я четко понимаю инструкции, приведенные выше.
 <b>Albania</b>	Albania Duke firmosur më poshtë unë konfirmoj se i kuptoj mirë udhëzimet më sipër
 <b>Romania</b>	Prin semnarea prezentului document, confirm că am înțeles clar informarea de mai sus.
 <b>Bulgaria</b>	Поставяйки подписа си по-долу, потвърждавам, че разбирам точно горния инструктаж

[illegible]