

**METHOD STATEMENT, RISK
ASSESSMENTS & C.O.S.H.H.
ASSESSMENTS FOR**

**DENYER HOUSE NW5
Retaining Wall**

Auguer Piling & Beam Construction

July 2016

Method Statement / Safe System of Work

Contract No:

Contract Name:

Method Statement Title: Install 11 No. 200 mm diameter augured open bore piles and Construct RC beam.

Date Written:

Brief Description of Works

The construction of 11 No. 200 mm diameters open bore piles 8m long with a 3m sleeve. Reinforcement per pile is 4No. H20 bars full length of pile with 4 No. H20 bars 3m long starter bars. Excavate and construct RC beam with Toe detail with 75mm claymaster to inner face of beams.

Plant & Equipment

1. Rubber tracked rigs
2. Power packs c/w hose
3. 200mm dia x 1m long augers.
4. Compressor c/w tools
5. 110v angle grinder
6. Laser
7. Youngman
8. Poker
9. Skip

Sequence & Method of Work

1. All operatives will arrive on site with all the correct PPE required to carry out their work safely.
2. All operatives will attend main contractor's site induction course; which will include site rules, sign in / out procedure and this method statement / risk assessments, together with any other H&S matters that may arise from time to time.

3. Client will set up welfare facilities, electric and water supply and secure the site before Purkelly's arrive to site.
4. The working area will be scanned by Purkelly's for services. If services are encountered within working area trial holes will be dug to determine the position, depth and type of service. The services encountered must be clearly marked and shown to piling foreman whom will move pile location if possible to miss the service and the new location agreed Purkelly's Engineer.
5. The client will mark the pile positions with pins and marker spray and datum level agreed on site before works commences.
6. The client will ensure there is adequate access to the working area for the piling rig to get to the rear garden..
7. Provision will be made to protect the existing mature tree which is to remain insitu.
8. A Protective hoarding formed from layer of 18mm WBP Ply sheeted around the perimeter of Tree from base to a height of 6ft.
9. The Tree Root system is to be mapped and ply and double layer of Scaffold Boards to be laid to minimise possibility of disturbance during the course of Plant Movement
10. A hi-ab lorry will deliver and unload piling rig, flights etc. at the front of the property.
11. The rig will be tracked through the Car Park area utilising travelling Matt into the rear garden and the power pack will have to be positioned in front of the building, the hydraulic hoses will be placed alongside Flank of the building connecting the power pack to the rig.
12. The rig will be tracked and positioned directly over a pin and levelled by hydraulic jacks.
13. The flighting system utilised is a 200mm diameter continuous flight auger supplied in 1m lengths, connected utilising male & female hexagon drive.
14. The cutting head is positioned within the gate and located in the drive. The pile is commenced by drilling to a pre-determined design depth by adding 1m lengths of auger/flight when required. The rig is checked for plumb every time an auger is added.
15. The spoil generated will be shovelled into a wheelbarrow or dumper and removed to a skip situated within Car Park Compound.
16. Once the specified depth is achieved (8m below ground level) the flights are removed in sequence until the lead flight remains.
17. The open bore is protected by installing a ball of polythene into the top of the pile ensuring no spoil falls down opening. The rig is tracked away and the pile head cleared of spoil.
18. When the rig is then move to new location, a 3m sleeve will be placed and secured at ground level. When a number of piles are complete they will inspected by building control, ensuring the pile is plumb, correct depth and is free of water.
19. The required reinforcement is lifted into the pile, (4 no. H20 bar full depth and 2 No. H20 bars 3m long will be inserted in each pile).
20. Once a number of piles are ready, C35 class 2 sulphate resistance concrete will be placed into the piles via wheel barrows from the back of a concrete wagon to the required height.

21. When all the piles are completed, the following day the excavation of the ground beams can commence, a level for the top of the beams will be agreed with the client and it will be transferred around the working area. The beams will be excavated to a required level approximately 1100mm below ground level and 50mm concrete blinding will be placed over the formation leaving a clean working area.
22. The piles will be cut down to the required level ensuring the pile penetrates into the beam by 75mm.
23. 220mm Cellcore will be placed onto the blinding and cut around the piles, 75mm claymaster will be placed along the internal face of the excavation.
24. The specified reinforcement for the beams will be fixed and 75mm concrete spacers will be placed at bottom and 50mm spacers fixed to sides of reinforcement.
25. When the beam is ready to be poured it will be inspected by the Engineer or Building Control, when passed the specified concrete can be placed and vibrated to correct level
26. The following day any excess concrete, timber etc will be disposed of within a skip and all plant removed from site. The working area will be left clean and safe for other trades to work.

Personal Involved

SD INSTALLATIONS LTD – Shay O'Driscoll (07961391586)

WHYMARK & MOULTON – Rob Osborne (01787371371)

Specialist ASUC Sub Contractor with in house Piling Engineer

Operatives: 1 No Foreman, 2 No labours.

P.P.E.

A minimum requirement as stated, i.e. hard hat, boots, hi-vis jacket, K Plus Gloves EN 420 or EN 388, goggles to BS EN 166B, ear defenders/ ear plugs to EN 352-2 and dust mask... When using breaker or compaction equipment persons to wear anti-vibration gloves to EN 388.

Risk Assessments

1. Piling and excavation (Electrocution).
2. Open excavation (Trips / falls and collapse side of excavation)
3. Movement of lorries and plant (Persons struck by skip wagon or delivery wagon)
4. Manual Handling (Injury to back)

5. Working with electric tools (Electrocution)
6. Use of hi-ab when loading & lorries (Materials dropping inadvertently or over turning vehicle)
7. Refuelling Plant (Fire & Spillage)
8. Working with concrete (Concrete burns)
9. Piling rig moving parts (Trapped limbs within spinning auger)
10. Cutting with petrol cut off saw or angle grinder. (Flying debris, incorrect fitting of blades. Cutting of limbs & spark damage))
11. Shuttering (Puncture wounds)
12. Using vibratory hand tools to excavate and break concrete piles (May cause hand and arm vibration syndrome)
13. Breaking down concrete piles. (Flying debris and compressor hose)

C.O.S.H.H.

This method statement is to be read with the following COSHH assessments:

Ready mix Concrete

Diesel

Hydraulic oil

Petrol

Line marker

Resinoid Bonded Disc

Concrete Mould oil

Timber

The Environment

The environment impact to the above has been assessed prior to commencing to works starting on site.

- Noise levels to be kept to a minimum.
- In case of fuel spillage or hydraulic hose being damaged it will be controlled by means of Oil soak granules or absorbent pads.
- Washing out concrete wagons within designated area.
- Works area to be kept clean at all times.
- Diesel to be stored on sump pallets.

- Spill trays placed under plant.
- No discharge of contaminated water within natural watercourse or surface water drains.

Safety

All activities to be carried out in accordance with Purkelly's Company Safety Policy, Site Rules, "The Health and Safety at Work Act 1974" and "The Management of Health and Safety at Work Regulations 1999".

Briefing Register

Purkelly's supervisor will ensure all operatives are site inducted and they should be aware of method statement and risk assessment for work they are undertaking.

Emergency Procedures / Actions

An emergency procedure will be issued to all site staff and operatives during site induction. In addition the nearest A & E and site first aider will be posted within the site welfare facilities. In case of any accident or near miss it should be reported to the site office & referred to Contractor Office EN3 7QN where the matter can be dealt with in the appropriate manner.

3rd Parties

Any queries or complaints from the public should be dealt with in a polite manner and they should be directed clients site office where the matter can be dealt with through the proper channels. Access to be maintained at all times to buildings.

Prepared by:

Checked by:

