



METHOD STATEMENT

FOR

BORED PILE CONSTRUCTION

Project Title	[Insert Project Name Here]
Client	[Insert Client Name]
Contractor	[Insert Contractor Name]
Document No.	MS-BP-001
Revision	01
Date	March 2026
Prepared By	[Name / Designation]
Approved By	[Name / Designation]

Table of Contents

1. PURPOSE AND SCOPE..... 3

 1.1 Scope of Works..... 3

2. REFERENCE DOCUMENTS AND STANDARDS..... 3

3. PERSONNEL AND RESPONSIBILITIES..... 3

4. PLANT, EQUIPMENT AND MATERIALS..... 4

 4.1 Plant and Equipment..... 4

 4.2 Materials..... 4

5. CONSTRUCTION SEQUENCE..... 5

 5.1 Pre-Construction Activities..... 5

 5.2 Temporary Casing Installation..... 5

 5.3 Boring / Drilling Operation..... 5

 5.4 Bore Cleaning..... 6

 5.5 Reinforcement Cage Fabrication and Installation..... 6

 5.6 Concrete Supply and Placement..... 6

 5.6.1 Concrete Specification..... 6

 5.6.2 Tremie Method..... 6

 5.7 Casing Extraction..... 7

 5.8 Post-Concreting Activities..... 7

6. QUALITY CONTROL..... 7

 6.1 Inspection and Test Plan (ITP)..... 7

 6.2 Non-Conformance..... 8

7. HEALTH, SAFETY AND ENVIRONMENT (HSE)..... 8

 7.1 Risk Assessment Summary..... 8

 7.2 Personal Protective Equipment (PPE)..... 8

 7.3 Emergency Procedures..... 9

 7.4 Environmental Controls..... 9

8. RECORDS AND DOCUMENTATION..... 9

9. REVISION HISTORY..... 10

10. APPROVAL / SIGN-OFF..... 10

1. PURPOSE AND SCOPE

This Method Statement describes the systematic procedures, plant, equipment, materials, and safety measures to be adopted for the construction of bored piles. It applies to all bored pile works carried out on the project and is intended to ensure that the works are executed safely, in conformance with the approved design, and in accordance with the project specifications and applicable standards.

1.1 Scope of Works

- Mobilisation and set-up of bored piling rig and ancillary plant
- Temporary casing installation and extraction
- Drilling / boring of pile shafts to the specified depth and diameter
- Desanding / cleaning of the bore
- Supply, fabrication and installation of reinforcement cage
- Concrete supply, placement and quality control
- Pile integrity testing as required
- Site reinstatement

2. REFERENCE DOCUMENTS AND STANDARDS

The works shall be carried out in accordance with the latest revisions of the following documents:

Ref. No.	Document / Standard	Description
BS EN 1536:2010	Execution of Special Geotechnical Works	Bored Piles
BS EN 1997-1	Eurocode 7: Geotechnical Design	Part 1: General Rules
BS 8004:2015	Code of Practice for Foundations	Foundation Design & Construction
ACI 318	Building Code Requirements for Structural Concrete	Concrete Design
ASTM D1143	Test Method for Piles Under Axial Compressive Load	Pile Testing
Project Specification	[Insert Spec Reference]	Project-Specific Requirements
Structural Drawings	[Insert Drawing Reference]	Approved for Construction Drawings
Geotechnical Report	[Insert Ref]	Site Investigation & Soil Data

3. PERSONNEL AND RESPONSIBILITIES

Role	Responsibility	Qualification
Project Manager	Overall management, client liaison, programme	Degree + 10 yrs exp.
Site Engineer	Technical supervision, setting out, records	Degree + 5 yrs exp.

Role	Responsibility	Qualification
Piling Supervisor	Day-to-day supervision of piling operations	Min. 7 yrs piling exp.
Rig Operator	Operation of piling rig and ancillary plant	Certified operator
QC Engineer / Inspector	Material testing, records, non-conformances	Degree + 3 yrs exp.
HSE Officer	Safety compliance, risk assessment, toolbox talks	NEBOSH / IOSH certified
Surveyor	Setting out pile positions, level checks	Licensed surveyor

4. PLANT, EQUIPMENT AND MATERIALS

4.1 Plant and Equipment

Equipment	Quantity	Purpose
Bored Piling Rig (Rotary / CFA)	1 No.	Primary boring plant
Temporary Steel Casing (various diameters)	As required	Stabilise upper section of bore
Kelly Bar / Auger / Bucket Drill	As required	Soil / rock excavation
Bentonite / Polymer Mixing Plant	1 No.	Slurry preparation and recycling
Desanding Unit	1 No.	Slurry cleaning prior to concreting
Crane / Crawler Crane	1 No.	Lifting reinforcement cage & tremie pipe
Concrete Pump / Transit Mixer	As required	Concrete placement
Tremie Pipe (min. 150mm dia.)	1 set	Underwater concrete placement
Survey Equipment (Total Station)	1 No.	Setting out pile positions
Slurry Test Equipment	1 set	Density, pH, viscosity testing
Water Tanker	1 No.	Water supply for slurry
Generator	1 No.	Standby power supply

4.2 Materials

Material	Specification	Standard
Concrete	Min. C30/37, w/c $\leq$ 0.5, slump 175–225mm, self-compacting	BS EN 206 / ACI 318
Reinforcement Steel	Grade B500B / Grade 60 deformed bars	BS 4449 / ASTM A615
Bentonite	API grade sodium bentonite	API Spec 13A
Polymer Slurry (alt.)	Biodegradable polymer stabilising fluid	As per supplier data sheet

Material	Specification	Standard
Temporary Casing	Steel, min. 10mm wall thickness	BS EN 10025
Spacers / Cover Blocks	Min. 75mm concrete cover	BS 8110

5. CONSTRUCTION SEQUENCE

5.1 Pre-Construction Activities

1. Obtain all permits and approvals including piling permit and working at height permit.
2. Conduct pre-construction survey of adjacent structures and utilities.
3. Establish setting-out grid and mark all pile positions from approved drawings using a Total Station.
4. Confirm pile positions with the Client / Engineer and obtain written approval.
5. Ensure the working platform is stable, level, and capable of supporting the piling rig (min. CBR as specified by rig manufacturer).
6. Mobilise all plant, equipment, and materials. Conduct pre-use inspection and document.
7. Conduct toolbox talk with all operatives covering the method statement and risk assessment.

5.2 Temporary Casing Installation

A temporary steel casing shall be installed at the commencement of each pile to stabilise the upper section of the bore and prevent collapse of surface soils.

- Casing shall be installed by the piling rig using oscillation or vibration to the specified depth (typically 2–6m or as required by ground conditions).
- Casing shall be plumb to within 1:200 tolerance and centred over the pile position.
- The top of casing shall be set to a level that allows a positive head of stabilising fluid to be maintained at all times.

5.3 Boring / Drilling Operation

Boring shall proceed using the appropriate drilling tools (auger, bucket drill, or core barrel) depending on soil / rock conditions encountered.

- Spoil shall be removed progressively and stockpiled clear of the bore, then removed to the designated spoil area.
- Stabilising fluid (bentonite slurry or polymer) shall be introduced into the bore as drilling progresses to maintain borehole stability. Fluid level shall be maintained a minimum of 1.5m above the groundwater level at all times.
- Slurry properties shall be tested and recorded before boring, during boring, and prior to concreting per the table below:

Property	During Boring	Pre-Concreting
Density (kg/m ³)	1025–1100	≤ 1100
Viscosity (Marsh cone, sec)	32–50	≤ 50
pH	8–11	8–11
Sand content (%)	< 4%	< 2%

- When final depth is reached, confirm toe level with the Engineer. Proof drilling may be carried out if specified.
- For piles bearing on rock, a socket of the specified depth and diameter shall be drilled and confirmed.

5.4 Bore Cleaning

Prior to lowering the reinforcement cage, the bore shall be thoroughly cleaned to remove settled sediment and contaminated slurry:

- Use a cleaning bucket or air-lifting to remove sediment from the base of the bore.
- Recirculate and desand stabilising fluid using the desanding unit until slurry properties meet the pre-concreting limits specified in Section 5.3.
- Measure base sediment thickness using a sounding device. Thickness shall not exceed 50mm prior to concreting.
- Record slurry density at base and mid-depth of pile.

5.5 Reinforcement Cage Fabrication and Installation

Reinforcement cages shall be fabricated in the yard or on site to the dimensions and details shown on the approved structural drawings.

- Cages shall be fabricated with the correct bar sizes, spacing, lap lengths, and anchorage lengths as specified.
- Minimum 75mm concrete cover shall be maintained using approved high-density polyethylene or precast concrete spacers fixed at 2m vertical intervals and symmetrically around the cage perimeter.
- Cages shall be inspected and approved by the Site Engineer / QC Inspector before installation.
- Cages shall be lowered carefully into the bore using the crane, maintaining plumb and avoiding disturbance to the borehole walls.
- Where cage length exceeds crane capacity, cages shall be spliced in sections. Laps shall comply with the approved drawings.
- Cage position and top level shall be confirmed and recorded. Centralising tags shall be used to prevent cage displacement during concreting.
- The tremie pipe shall be assembled and lowered to the base of the bore after cage installation.

5.6 Concrete Supply and Placement

Concrete placement shall commence as soon as practicable after cage installation to minimise the risk of bore instability and sediment re-settlement.

5.6.1 Concrete Specification

- Mix design shall be submitted and approved prior to commencement.
- Concrete shall be highly workable (self-compacting or slump $\geq 175\text{mm}$) to ensure adequate flow through the reinforcement and tremie pipe without segregation.
- Water-cement ratio shall not exceed 0.50.
- Admixtures (plasticiser / retarder) shall be used as required, with prior approval.

5.6.2 Tremie Method

Concrete shall be placed by the tremie method as follows:

8. Assemble and lower the tremie pipe to the base of the bore. The pipe shall have a minimum internal diameter of 150mm.
9. Seal the tremie pipe with a rubber plug or "go-devil" before commencing concrete placement to prevent mixing of concrete and slurry.
10. Begin pumping concrete. Concrete shall initially be placed in a sufficient quantity to fill the tremie pipe and displace the plug.
11. Maintain the tremie pipe embedded a minimum of 2m into the rising concrete at all times. Do not pull the pipe out of the concrete.
12. Raise the tremie pipe progressively as concrete level rises; raise in increments of no more than 0.5m at a time.
13. Continue pouring until clean concrete overflows at the top of the pile, ensuring contaminated concrete is expelled. Over-pour by a minimum of 300–500mm above cut-off level to allow for trimming.
14. Record concrete volume poured against theoretical volume calculated. Investigate any discrepancy greater than 20%.
15. Monitor and record top-of-concrete level using a sounding tape or electronic device during concreting.

5.7 Casing Extraction

- The temporary casing shall be extracted while concrete is being placed and while the concrete remains workable (slump $\geq 100\text{mm}$).
- Extract the casing slowly and smoothly using the piling rig oscillator / extractor to avoid uplift of the reinforcement cage or disturbance to fresh concrete.
- Maintain concrete level inside the casing above the base of casing at all times during extraction. Add concrete if required.
- Record casing extraction sequence and timing.

5.8 Post-Concreting Activities

- Allow concrete to achieve initial set before any plant moves over the pile head (minimum 24 hours or as advised by concrete supplier).
- Trim pile head to the cut-off level as specified. Trimming shall be carried out by mechanical breaker or hand tools to avoid damage to the pile shaft.
- Inspect exposed reinforcement. Straighten or replace any damaged bars.
- Record the as-built pile number, position, toe level, cut-off level, and concrete volume in the pile record sheet.

6. QUALITY CONTROL

6.1 Inspection and Test Plan (ITP)

All activities shall be carried out in accordance with the project Inspection and Test Plan. Key control points are summarised below:

#	Activity	Acceptance Criteria	Frequency	Responsibility	Record
1	Pile position setting out	$\leq 75\text{mm}$ from design position	Each pile	Surveyor / Eng.	Setting out record
2	Verticality of casing	$\leq 1:200$	Each pile	Piling Supervisor	Site record
3	Depth of bore	As per design $\pm 0.1\text{m}$	Each pile	Site Engineer	Pile record

#	Activity	Acceptance Criteria	Frequency	Responsibility	Record
4	Slurry properties (during bore)	Per Section 5.3	2x per shift	QC Engineer	Slurry test log
5	Slurry properties (pre-concrete)	Per Section 5.3	Each pile	QC Engineer	Slurry test log
6	Base sediment thickness	≤ 50mm	Each pile	Site Engineer	Pile record
7	Reinforcement cage check	Per approved drawings	Each cage	Site Engineer	Rebar inspection record
8	Concrete slump test	175–225mm (or as specified)	Each truck	QC Engineer	Concrete delivery record
9	Concrete cube / cylinder sampling	Min. f _c as specified	1 set per 25m ³ (min. 3 sets/pile)	QC Engineer	Lab test report
10	Concrete volume poured	≥ theoretical volume	Each pile	Site Engineer	Pile record
11	Pile integrity testing (PIT / CSL)	As per specification	As specified	QC Engineer	Integrity test report

6.2 Non-Conformance

Any non-conformance with this method statement or specified requirements shall be reported immediately to the Site Engineer and QC Engineer. A Non-Conformance Report (NCR) shall be raised and the affected pile shall be clearly marked and isolated pending investigation and resolution.

7. HEALTH, SAFETY AND ENVIRONMENT (HSE)

7.1 Risk Assessment Summary

Hazard	Risk	Control Measure
Rig overturning	Death / serious injury	Working platform adequacy check; maintain safe standoff; banksman at all times
Falling into open bore	Death / serious injury	Bore to be covered immediately after completion; barriers and signage around open bores
Lifting operations (crane / casing)	Crush injury / entrapment	Lift plan; certified rigger; exclusion zone; SWL not exceeded; slinger/signaller
Concrete truck movement	Struck-by injury	Traffic management plan; banksman; segregated pedestrian route
Exposure to bentonite / cement	Dermatitis / eye injury	PPE: gloves, goggles; COSHH assessment; welfare facilities on site
Noise and vibration	HAVS / hearing damage	HAV / noise assessment; hearing protection zones; tool rotation
Underground services	Electric shock / explosion	CAT & Genny scan before any excavation; service drawings reviewed
Bentonite slurry spillage	Environmental pollution	Bunded storage area; spill kit on site; slurry disposal per waste management plan
Working at height (cage lifting)	Fall from height	Full body harness; exclusion zone under loads; PFPE inspected

7.2 Personal Protective Equipment (PPE)

The following minimum PPE shall be worn by all personnel in the piling area at all times:

- Safety helmet (EN 397)
- High-visibility vest or jacket (EN ISO 20471 Class 2 minimum)
- Safety boots with steel toecap and midsole (EN ISO 20345)
- Safety gloves (chemical-resistant when handling slurry / cement)
- Safety goggles / glasses when drilling or handling slurry
- Hearing protection in designated noise zones
- Respiratory protection when required by COSHH assessment

7.3 Emergency Procedures

- Emergency assembly point location to be communicated during site induction.
- First aid box and trained first aider to be available on site at all times.
- Emergency contacts (ambulance, fire, supervisor) to be posted in site office and welfare facilities.
- In the event of a bore collapse or rig incident, isolate the area, account for all personnel, and notify the Site Manager and HSE Officer immediately.
- Slurry spill: contain using sandbags / absorbent booms; do not allow to enter drains; notify Environment Officer.

7.4 Environmental Controls

- Stabilising fluid (bentonite / polymer) shall be stored in a bunded area to prevent ground contamination.
- Spent slurry and spoil shall be disposed of in accordance with the project Waste Management Plan and applicable local regulations.
- Concrete washout shall be contained and not discharged to surface water or drains.
- Equipment shall be checked for fuel / oil leaks before mobilisation to site.
- Noise and vibration levels shall be monitored and controlled in accordance with the Environmental Management Plan.

8. RECORDS AND DOCUMENTATION

The following records shall be completed for each pile and retained in the project quality file:

Record / Form	Responsible Party	Filing Location
Pile Setting-Out Record	Surveyor / Site Engineer	Quality File
Bored Pile Record Sheet (per pile)	Piling Supervisor / Site Engineer	Quality File
Slurry Test Log	QC Engineer	Quality File
Reinforcement Inspection Certificate	Site Engineer / QC Inspector	Quality File
Concrete Delivery Notes (all trucks)	QC Engineer	Quality File
Concrete Cube / Cylinder Test Reports	QC Engineer / Lab	Quality File
Pile Integrity Test Reports	QC Engineer / Specialist	Quality File
Non-Conformance Reports (if any)	QC Engineer	Quality File
Daily Site Diary	Site Engineer	Quality File

Record / Form	Responsible Party	Filing Location
Toolbox Talk Records	HSE Officer	HSE File
Equipment Pre-Use Inspection	Operator / Supervisor	HSE File

9. REVISION HISTORY

Rev.	Date	Description of Change	Prepared By	Approved By
01	March 2026	Initial Issue	[Name]	[Name]

10. APPROVAL / SIGN-OFF

This Method Statement has been reviewed and approved by the following:

Name	Designation	Signature	Date
	Project Manager		
	Site Engineer		
	HSE Officer		
	Client / Engineer Representative		

END OF DOCUMENT