



# Drill bored piles $\leq 600$ mm checklist – no concreting

Drill bored piles  $\leq 600$  mm inspection with interactive checklist, commentable records, and export as PDF/Excel. Verify verticality, base cleanliness, groundwater control, and diameter pre-placement.

Project:

Date:

Filled by:

## Pre-Drilling & Setup

1	Confirm pile ID, grid location, design diameter ( $\leq 600$ mm), and target depth against approved drawings; mark out on site and capture setout photos with datum references.
2	Verify rig capacity and calibrated instruments (inclinometer, depth meter, water level/interface meter); attach current calibration certificates and record serial numbers.
3	Inspect temporary casing stock (diameter, wall thickness, usable length) to extend through unstable strata and below groundwater as required; photograph casing IDs and tally lengths.

## Verticality Measurement

4	Align and zero the rig mast using a spirit level and mast inclinometer before drilling; acceptance: initial verticality $\leq 0.3\%$ or per approved project specifications; save inclinometer screenshot.
5	Record mast inclination at 1–2 m depth intervals during drilling; acceptance: cumulative deviation $\leq 1\%$ of bore length or per specifications; maintain a time-stamped inclination log.
6	Measure verticality at final depth with the inclinometer or plumb bob in casing; acceptance: $\leq 1\%$ of bore length; attach final reading and note any corrective actions.

## Groundwater & Stability Control

7	Measure groundwater level pre-drilling using an interface/water level meter; record elevation relative to site datum to plan casing or fluid head requirements.
8	Maintain casing or support fluid head $\geq 1.0$ m above groundwater level to prevent inflow and wall sloughing; log levels hourly and after depth changes with photos of gauges.
9	Advance/oscillate casing through unstable or water-bearing layers until competent stratum; acceptance: stable walls with no ongoing rilling; capture before/after photos and casing tip depth.
10	Suspend drilling and notify supervision if wall collapse, excessive inflow, or loss of head occurs; raise a hold point and record corrective plan approval.

Base Cleanliness (Sediment)	
11	After reaching final depth, pause to allow cuttings to settle (minimum 5–10 minutes or per specifications); record waiting time and tool withdrawn.
12	Clean the base using an airlift bailer or clean-out bucket until returns are clear; acceptance: minimal fines in returns; photograph equipment and returns condition.
13	Measure sediment thickness with a weighted tape, spoon, or clean-out plate; acceptance: $\leq 50$ mm or per approved project specifications; log three readings and average.
14	Repeat clean-out and measurement cycles until the average sediment thickness satisfies the acceptance limit; attach final measurements and supervisor confirmation.

Diameter & Geometry Verification	
15	Verify bore diameter at multiple depths using a mechanical caliper, sonic caliper, or template; acceptance: measured diameter $\geq$ design; upload caliper profiles with depth markers.
16	Pass a full-length dummy cage or template equivalent to design reinforcement size; acceptance: unobstructed descent and retrieval; record video or photos of pass-through.
17	Confirm the last drilling tool diameter is not less than design diameter; document tool type, diameter, and manufacturer plate photo.
18	Check final depth against drawings; acceptance: depth $\geq$ design and within $+0.3$ m/ $-0.0$ m or as specified; export depth meter log with timestamps.

Documentation & Handover	
19	Capture geotagged photos of bore mouth, casing stick-up, wall condition, and base inspection/clean-out tools; label images with pile ID and time.
20	Compile inclinometer logs, groundwater and head readings, sediment measurements, diameter verification, and depth records; attach to the pile inspection report for review.
21	Obtain digital sign-off from site engineer/inspector; publish the record set and link a QR code at the pile location for traceable retrieval.

## Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Drill bored piles <math>\leq 600</math> mm require disciplined verification of verticality, base cleanliness, groundwater control, and diameter to ensure a stable, compliant bore prior to any placement activities. This focused bored pile inspection checklist excludes concreting steps and concentrates on the most risk-sensitive attributes: verticality checking, sediment thickness confirmation, fluid or casing stability, and borehole geometry. By validating instrument calibration, continuously logging mast inclination, maintaining a safe head above groundwater, and confirming diameter via caliper or template checks, you reduce risks of misalignment, soft toe, underbreak, or wall collapse. Acceptance criteria are referenced per approved project specifications and authority requirements, while practical evidence—photos, logs, and signatures—confirms compliance. Use this interactive tool to standardize quality outcomes, avoid rework, and provide transparent, auditable records for stakeholders. Start in interactive mode to tick items, add comments for variances, and export as PDF/Excel with an embedded QR to authenticate field data.</p>	<p>1. Preparation: Gather calibrated inclinometer, depth meter, water/interface level, clean-out tools (airlift bailer/clean-out bucket), caliper or template, casing, and PPE. Review drawings, approved project specifications, and method statements before mobilizing. 2. Start Interactive Mode: Open the checklist on a mobile/tablet, select the pile ID, and begin ticking items. Add comments for variances, attach photos/videos, and capture instrument screenshots directly in each step. 3. Record Measurements: Enter verticality readings by depth, groundwater and head levels, sediment thickness values, and diameter profiles. Use numeric fields and ensure timestamps and user IDs are captured. 4. Review and Resolve: Address any nonconformances before proceeding. Use the comment thread to note corrective actions and reference approvals per project specifications and authority requirements. 5. Export and Sign-Off: Generate an export as PDF/Excel with embedded photos and logs. Obtain digital signatures, distribute to stakeholders, and verify QR authentication for the archived record.</p>