



Break Pile Heads Checklist: Low Vibration, Clean Substrate

Break pile heads with our interactive checklist, commentable and export as PDF/Excel, to control vibration and remove weak concrete to sound substrate.

Project:

Date:

Filled by:

Pre-Work Verification

1	Confirm approved drawings show pile cut-off elevations, permitted breaking methods, and exclusions; record ITP references. Acceptance: engineer's authorization captured; inspection request and drawings uploaded with pile IDs.
2	Record that capping or pile head treatment is excluded from this scope. Evidence: marked drawing note and supervisor acknowledgment filed in the lot folder.
3	Conduct pre-start briefing on the method statement and risk assessment. Acceptance: attendee signatures with date/time; photos of posted controls and emergency plan.
4	Set vibration and noise limits per approved project specifications and authority requirements; deploy PPV and noise monitors. Evidence: baseline readings, device IDs, and monitor locations recorded.
5	Scan for services (GPR and cable locator) and obtain permit-to-break. Acceptance: scan map, ground markings, and signed permit attached to the checklist.

Equipment & Safety Controls

6	Select low-vibration equipment (hydraulic cruncher, light breaker with anti-vibration, or hydrodemolition) suited to pile size. Acceptance: supervisor approval; equipment data plate photo uploaded.
7	Calibrate and function-test the vibration monitor at the nearest receptor. Evidence: current calibration certificate and test screenshot stored with pile ID.
8	Install dust suppression and debris containment (fine mist spray, sheeting, catch boards). Acceptance: photo of active system and edge protection in place.
9	Set exclusion zone with barriers/signage; brief spotter. Acceptance: measured radius posted; access log maintained and uploaded daily.

Set-Out & Protection

10	Mark design cut line using rotating laser and staff. Acceptance: elevation checks recorded; continuous visible line; tolerance per approved drawings.
11	Saw-score a shallow perimeter (control cut) to limit spalling. Evidence: continuous scoring around head; depth per method statement; photo with gauge.
12	Sleeve or tape exposed longitudinal reinforcement to prevent nicking during removal. Evidence: protection installed prior to breaking; before/after photos each shift.

Breaking & Removal	
13	Start breaking from edges toward center at a shallow tool angle. Acceptance: no visible bar strikes; PPV trends remain within specified limits; logs uploaded.
14	Pry away loosened concrete; avoid heavy blows that shatter aggregate. Evidence: close-up photos showing intact aggregate faces in each quadrant.
15	Remove in thin lifts with periodic monitoring pauses. Acceptance: lift thickness recorded in mm with a scale; vibration/noise readings meet limits.
16	Switch to hydraulic cruncher or hydrodemolition in congested reinforcement zones. Evidence: method change noted; splash/containment active; water management established.
17	Stop immediately upon tool contact with rebar; reorient or change method. Acceptance: bars inspected; no visible nicks; photo with measuring scale.
18	Manage slurry and runoff through filtration per environmental plan. Evidence: sediment control setup photographed; waste and water disposal logs completed.

Rebar Inspection & Preparation	
19	Expose reinforcement fully around circumference and to required projection. Acceptance: measurements in millimetres recorded against approved drawings.
20	Clean bars with wire brush or needle scaler; remove rust/laitance. Acceptance: bright metal visible; any damage addressed per approved project specifications.
21	Assess concrete soundness by hammer tap, scratch, or rebound tests. Acceptance: weak material removed to sound substrate; readings and witness sign-off recorded.

Verification & Documentation	
22	Confirm final cut elevation with laser level. Acceptance: elevation within design tolerance per approved drawings; instrument screenshot and supervisor sign-off attached.
23	Capture as-built photos/video (360° if available) and monitoring logs. Evidence: files uploaded with timestamps, pile ID labels, and location references.
24	Dispose of debris and wash-down water per environmental plan. Acceptance: waste transfer notes and any pH/turbidity readings uploaded to the lot record.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
<p>Break pile heads is the process of reducing pile tops to the designed cut level while controlling vibration, preventing rebar damage, and removing weak concrete to a sound substrate. Also known as pile head breaking, pile cropping, or controlled concrete removal, this scope stops before any capping works. Risks include exceeding vibration limits that disturb neighbors or crack nearby structures, nicking reinforcement that compromises bond, and leaving laitance that undermines subsequent construction. This checklist focuses on method selection (hydraulic cruncher, low-vibration breaker, or hydrodemolition), good set-out, perimeter scoring, progressive removal in thin lifts, diligent vibration/noise monitoring, and thorough rebar exposure and cleaning. Acceptance cues emphasize measurements with a laser level, recorded PPV trends, visual and simple hardness checks, and clear photo evidence. Use this interactive checklist to plan, execute, and document compliant outcomes—tick items as you go, add comments for issues, and export your records to PDF/Excel with a secure QR link.</p>	<ol style="list-style-type: none"> 1. Preparation: gather approved drawings, method statement, risk assessment, calibration certificates, vibration/noise monitors, laser level, suitable breakers/crunchers or hydrodemolition kit, mist suppression, PPE, barriers, and environmental controls. 2. Open the checklist via QR code or project link. Create a lot with pile IDs, location references, and target cut elevation per drawings. 3. Start interactive mode. Tick items as completed and use required fields to record measurements, readings, and tool selections. 4. Add comments for issues or deviations, tag responsible parties, and request approvals where witness points apply. 5. Attach photo evidence, monitor logs, calibration certificates, and level screenshots. Ensure timestamps and pile IDs are visible. 6. Export to PDF/Excel for daily review or lot completion. Include comments and attachments in the export package. 7. Sign-Off: capture digital signatures from supervisor, contractor, and engineer as applicable, then distribute to stakeholders. 8. Archive the signed record in the project CDE. Verify QR authentication for quick retrieval during audits or inspections.