



# Place backfill in controlled lifts (vertical rise) checklist

Place backfill in controlled lifts (vertical rise) using an interactive checklist that is commentable and can export as PDF/Excel, guiding lift thickness control, equipment selection, and placement sequence for consistent results.

Project:
Date:
Filled by:

## Pre-Placement Verification

1	Confirm subgrade is approved, stable, and free of standing water; document with dated photos and foreman signature per approved project specifications and authority requirements.
2	Verify backfill source and type match specifications by delivery tickets and material certificates; photograph stockpiles and record load IDs and quantities.
3	Set grade control for lift thickness using laser level and painted benchmarks; tolerance $\pm 10$ mm from planned lift thickness at five checks per 100 m <sup>2</sup> .
4	Review weather forecast; suspend placement during heavy rain or high winds; attach forecast screenshot and note decision time in the log.
5	Establish safe access, working platform, and edge protection; record daily field hazard assessment with crew sign-on sheet and photos.

## Equipment and Resources

6	Confirm compactor type and mass suit material and space (rammer, vibratory plate, smooth drum, trench roller); record model, serial, and static weight.
7	Verify laser level/automatic level accuracy with a two-peg test; acceptance $\pm 3$ mm over 30 m; save readings and calibration photo.
8	Inspect compactor condition, drum/pad cleanliness, vibration settings, and fuel; photo hour meter and complete pre-start checklist.
9	Stage water source, hoses, and sprinkler/nozzle for moisture conditioning; prove flow and reach; log equipment location and water access route.
10	Brief crew on roles, lift targets, compaction pattern, and hold points; capture attendance and toolbox talk notes with signatures.

## Lift Placement and Thickness Control

11	Limit material drop height to $\leq 1.0$ m to prevent segregation; photograph discharge points and note chute/boom height.
12	Spread backfill uniformly to target 150–200 mm loose thickness unless otherwise specified; measure at five locations per 100 m <sup>2</sup> ; tolerance $\pm 10$ mm.
13	Strike-off surface with blade/box to level; verify flatness within $\pm 15$ mm under a 3 m straightedge; photo with straightedge and tape.
14	Compact edges first along walls and formwork to prevent sloughing; document passes and take corner photos before main pattern starts.
15	Remove organics, debris, or oversized pieces; segregate and photograph rejected material pile with approximate volume noted.

Moisture Conditioning and Compaction Passes	
16	Assess moisture by squeeze/appearance; add water via fine spray or aerate by scarifying until uniformly workable; note method and duration.
17	Run uniform compaction passes with 150–200 mm overlap; record the pattern and minimum four passes or per specification; capture short video clip.
18	Monitor for rutting, pumping, or displacement; if rutting >25 mm occurs, stop, recondition moisture, and recompact; attach before/after photos.
19	Verify compacted lift thickness using a painted ruler or probe rod at five locations per 100 m <sup>2</sup> ; tolerance ±10 mm from planned compacted thickness.
20	Protect adjacent structures and utilities; hand-tamp within 300 mm of edges; photo evidence of hand tools used and clearances maintained.

Sequencing and Layering (Vertical Rise)	
21	Advance lifts from low to high points maintaining ≥1% surface fall; confirm with level and document elevations at start and high end.
22	Stagger lift terminations between adjacent panels by ≥300 mm; sketch or mark offsets and attach annotated photo.
23	Scarify the top 10–15 mm before next lift to key layers; photo the scarified surface with scale.
24	Cover completed lift against rain/drying with tarps or curing sheets; if rainfall >5 mm, pause and record protection measures; obtain foreman sign-off before next lift.

**Comments:**

Filled by:

Signature:

Introduction	How to use this checklist
<p>Place backfill in controlled lifts (vertical rise) is a field-focused method for building uniform layers of engineered fill without relying on testing. This checklist emphasizes layered backfill placement, lift thickness control, compaction equipment selection, and vertical lift sequencing to achieve predictable, safe results. You will verify materials by documentation and observation, set clear thickness benchmarks, condition moisture, and place and compact each lift in a repeatable sequence. The scope excludes density or laboratory testing, but it demands consistent measurement, photos, and sign-offs to demonstrate compliance per approved project specifications and authority requirements. By following these steps, teams reduce settlement risks, avoid overcompaction near structures, prevent segregation from excessive drop heights, and maintain positive drainage during placement. Use this interactive checklist to tick items in real time, add comments for field decisions, attach photos for evidence, and export a complete record as PDF/Excel secured by QR code.</p>	<p>1. Preparation: Gather project specifications, delivery tickets, laser/automatic level, probe ruler, compaction equipment, water source with hose/sprinkler, straightedge, PPE, and a mobile device. Confirm safe access, working platform, and crew roles before opening the checklist. 2. Launch Interactive Checklist: Start interactive mode on your device. Tick items as you proceed, attach photos and short videos as evidence, and note measurements directly beside each step for immediate traceability. 3. Record and Collaborate: Use comments to capture decisions on equipment settings, moisture conditioning, and sequence changes. Mention team members, time-stamp adjustments, and link to sketches or markups for quick field alignment. 4. Export and Share: When a lift is complete, export the log as PDF/Excel. The QR code on each export authenticates the record and allows stakeholders to verify source and timestamp. 5. Sign-Off and Archive: Capture digital signatures from the foreman and supervisor. Distribute the export to the client and archive it in the project folder, tagging by area, chainage, and lift number.</p>