READY TO INSPECT — FIELD CHECKLIST

Retaining walls rough-in inspection checklist

Retaining walls rough-in is the last time the work is fully visible. Once the cover inspection passes and the walls, ceilings and slabs close, every defect left behind becomes a demolition bill. This checklist walks the rough-in in the order the work goes in, with the photo each item needs before it gets buried. Work is commonly verified against the project geotechnical report and specifications, the applicable building code. Confirm the edition your authority having jurisdiction has adopted.

Who runs it: The GC's superintendent walking the wall with the installing crew's foreman, releasing each lift before backfill covers it. When: As the wall is built: the leveling pad and base course before the second course goes on, then each geogrid or reinforcement layer and drainage detail before the lift above it is backfilled and lost.

Design and excavation

- [ ] Approved wall design on site for the stations being built
  The wall engineer's design at its current revision on hand, and the section being built (height, grid layout, surcharge) is the one that applies at these stations.
  No photo required
- [ ] Backcut excavated to the limits the wall design needs
  Cut laid back for the full reinforced zone, sloped or benched as the competent person set it before anyone works at the wall base, sloughed soil cleared, observed from the top.
  1 photo required

Foundation and base course

- [ ] Leveling pad on approved subgrade, to line and grade
  Bearing soil at the design elevation and approved by the geotech, pad material and thickness per the plan, top screeded level.
  2 photos required
- [ ] Base course level, aligned and seated
  First course checked level end to end and front to back, units in full contact with the pad, alignment string set for the batter.
  2 photos required
- [ ] Toe embedment below finished grade matches the design
  Depth from the finished grade in front of the wall to the bottom of the base course or footing checked at each step against the approved wall design.
  1 photo required

Reinforcement

- [ ] Geogrid or reinforcement layer at the correct elevation
  Layer placed at the course called out on the design, correct grid strength and roll orientation for the section of wall.
  No photo required
- [ ] Embedment length into the backfill zone verified
  Grid run back the full design length into the reinforced zone, pulled taut with no wrinkles, before any fill covers it.
  No photo required
- [ ] Block and grid pallet tags matched to the approved wall design
  Unit type and reinforcement product on the pallet and roll labels read against the wall design and submittal, any substitute reported to the wall engineer before it goes in.
  1 photo required
- [ ] Grid pulled to the face and captured by the course above
  Where the design uses geogrid, the grid laid to the front of the unit's connection and held by the next course before it is tensioned back, none ending short of the face.
  No photo required

Drainage

- [ ] Drainage aggregate and pipe placed behind the wall
  Free-draining aggregate zone the specified width directly behind the units, perforated collector pipe laid to drain, wrapped or bedded per the detail.
  2 photos required

- [ ] Drainage aggregate delivery ticket matches the wall design
  Ticket and stockpile checked against the gradation on the approved wall design, dirty or fines-laden stone kept out of the drainage zone.
  1 photo required

Backfill and compaction

- [ ] Backfill placed and compacted in lifts as the wall rises
  Fill built up in the specified lift thickness, compacted each lift, heavy equipment kept back off the reinforced zone near the face.
  2 photos required

- [ ] Density test passing on this lift before the next course goes on
  Testing agency's result for the reinforced-zone lift read against the compaction on the wall design, a failing lift reworked and retested before it is covered.
  No photo required

- [ ] Engineer's field observations logged for the lifts they must see
  Where the wall design requires the engineer or special inspector on site, their visit for the base, each grid layer or the drain recorded before that work is buried.
  No photo required

- [ ] Seepage or soft soil in the backcut reported to the wall engineer
  Groundwater, wet seams or soil unlike the geotechnical report noted with location and course, and the engineer's direction recorded before building above it.
  No photo required