

# Foundation Construction Checklist for Site Engineers

This checklist ensures **safe, strong, and accurate execution** of foundation works on-site. Use it during inspections, supervision, and quality control.

---

## 1. Pre-Construction Checks

Task	Status (✓ / ✗)	Remarks
Site cleared of vegetation and debris		
Soil test report verified (SBC, water table)		
Foundation layout marked as per drawings		
Centerlines and reference levels checked		
Excavation depth and size marked accurately		
Safety PPE provided to all workers		

---

## 2. Excavation Work

Task	Status (✓ / ✗)	Remarks
Excavation done to required depth and dimensions		
Sides properly sloped or shored		
Excavated soil stored at safe distance (1m away)		
Dewatering arranged (if water table present)		

---

### 3. Soil and Base Preparation

Task	Status (✓ / ✗)	Remarks
Compaction of bottom surface done		
Anti-termite treatment applied		
50–75 mm PCC (1:4:8) laid uniformly		
Surface level and cured before reinforcement		

---

### 4. Reinforcement and Formwork

Task	Status (✓ / ✗)	Remarks
Rebar placed as per structural drawing		
Cover blocks used (minimum 50 mm in footings)		
Lapping, hooks, bends as per IS Code		
Shuttering done with tight joints		
Clean and oiled formwork surface		
Steel checked for rust-free and correct dia.		

---

### 5. Concrete Work

Task	Status (✓ / ✗)	Remarks
Concrete mix design confirmed (M20/M25)		

Materials (cement, sand, aggregates) tested

Mixing done thoroughly or via RMC

Compaction using vibrator ensured

Top surface leveled and finished properly

Cube samples taken for testing (7 & 28 days)

---

## 6. Post-Pouring & Curing

Task	Status (✓ / ✗)	Remarks
Shuttering removed after initial setting		
Curing started after 24 hours (min 7–14 days)		
Proper water curing or gunny bags used		
No cracks or honeycombing visible		

---

## 7. Documentation and Handover

Task	Status (✓ / ✗)	Remarks
All inspection reports filled		
Photographic record taken (before & after)		
Material test reports compiled		
Cube test results documented		

Engineer's signature and  
approval

---

## Tips for Site Engineers:

- Always **cross-check BBS (Bar Bending Schedule)**
- Monitor **curing continuously for 14 days**
- Never compromise on **cover blocks** and **compaction**
- Ensure **line, level, and plumb** of all elements
- Use **checklists daily** to avoid construction errors