

CONSTRUCTION PRACTICES

Sequence of activities and construction co-ordination

Planning

Planning is considered as a precondition measures before attending any development program

Particularly planning is more important in the following area

When the fund available are limited

The total requirement is much higher

Sequence of operation

It is always desirable to divide large projects into several construction stages

For prepare progress of construction each stage may be constructed under separate contraction
It should be carried out in the proper method and arrangement

Before starting to construct the structure we must go for the sequence of operation in the project
it is better way o arrange the labour material and equipment

Following are the sequence of operation in a highway project

Site clearance

Earth work for laying embankment

Construction of drainage works

Construction of pavement structures

Installation of light poles and road signals

MARKING, SETTING OUT OF FOUNDATION

Setting out is the process of laying down the excavation lines and centre lines on the ground before excavation is started after the foundation design is done

For setting out the foundation of a small building the centre line of the longest outer wall of the building is first marked on the ground by stretching a string between wooden or mild steel pegs driven at the ends

Two pegs one on either from the central peg are driven at the each end of the line

Each peg is equidistant from the central peg and the distance between the outer pegs corresponds to the width of foundation trench to be excavated

Each peg may be projected about 25 to 50 mm above ground level may be driven at a distance of 2m from the edge of excavation

When the string is stretched joining the corresponding pegs at the two extremities of the line the boundary of the trench to be excavated can be marked on the ground with dry lime powders

A right angle can be set out by forming 3, 4 and 5 units long

The centre line of the other wall which is perpendicular to the long wall can be marked by setting out right angles

All the specifications are made by tape or prismatic compass may be used for setting out right angles

Similarly outer lines of the foundation trench of each cross wall can be set out

For big project reference pillars of masonry is constructed first, these pillars may be about 20cm thick and 15cm wider than the width of the foundation

EXCAVATION

Excavation of foundation can be done by manually or with the help of special mechanical equipments

Manually it can be done by the help of following equipments

- ✓ Spade
- ✓ Phawrah
- ✓ Pick axe
- ✓ Crowbar
- ✓ Rammer
- ✓ Wedge
- ✓ Boning rod
- ✓ Sledge hammer
- ✓ Basket
- ✓ Iron pan
- ✓ line and pins

Mechanically the excavation can be done by the help of following machineries

- Boom bucket dipper handle
- Trench
- Chain mounted buckets
- Raking cut
- Vertical cut

Source : <http://www.nprcet.org/e%20content/Misc/e-Learning/CIVIL/VI%20SEMESTER/10111CE601%20-%20CONSTRUCTION%20TECHNIQUES%20EQUIPMENTS%20AND%20PRACTICE.pdf>