

D) FOUNDATIONS & EARTHWORKS

1. Foundation of the structure is based on the bearing capacity 0.90 (will be confirmed after bores test result) T/ft^2 of soil as recommended in the soil test report.
2. Backfilling shall be done in layers, each layer shall not be more than 6 inch before compaction and compacted to at least 95% of max dry density as determined by modified proctor tests.
3. A well graded gravel/sand blend cushion shall be provided under the footing to increase allowable bearing capacity. The gravel cushion shall be provided in 2 ft thickness in three layers and compacted up to 100% of max dry density.
4. No backfill shall be executed around the building before the approval of electrical engineer by means of resistivity test.
5. In Case of seepage PCC and water proofing layers under raft shall be as per:

a. 3" PCC (1:4:8) Blending Concrete

b. Priemer Coat.

c. 3mm to 4mm thick water proofing membrane (PP 4000 or Hygrip etc)

d. 3" PCC (1:3:6)

E) RETAINING WALL NOTES

1. These notes shall apply to all earth or water retaining walls.
2. No fill shall be placed against the wall unless all framing to which this wall abuts has attained design strength.
3. Where backfill must be placed to proceed with work or to fulfill the requirements of a detail, the contractor shall design and take Engineer's approval for bracing the wall prior to placing any such backfill.
4. All backfill behind retaining walls shall consist of coarse sand with or without gravel and shall be compacted with small sized appropriate compactors.
5. All heavy conctruction machinery shall stay minimum 6 feet away from walls.
6. Proper water proofing shall be done at all external faces of walls before backfilling.
7. Different sections of retaining walls are given. It is responsibility of the contractor to match sections as per actual levels at site. If any problem is faced then the matter should be discussed with the Engineer.

F) STRUCTURAL SLAB NOTES

1. These notes shall apply to all suspended structural slabs.
2. Minimum bottom reinforcement in each direction shall be #3@10"C/C even though none may be shown. Min. slab thickness is 4.5".
3. Provide 4 # 4 as top reinforcement over all supports even though none may be shown in length as required by Engineer.
4. Distribution steel for top slab steel shall be #3@12"C/C.
5. 2½" x 2½" Precast concrete blocks having cement sand ratio (1:1) and spaced not more than 3 ft c/c shall be used for provision of required cover to bottom reinforcement. Thickness of these blocks shall be equal to the required cover.
6. All top reinforcement shall be supported by chairs of proper height at a maximum spacing of 30 inch each way.
7. The fillet and chamfer moulding strips must be plastic.
8. All electric conduits or other service pipes shall be placed above the bottom layers of reinforcement.However in all cases, all conduits shall be embedded in the concrete with a minimum cover as specified in item B-4 above for reinforcement bars.
9. Construction joint in slab shall in general be provided in a location between 1/3 and 1/2 of the span from the support and as approved by the Engineer.
10. In general, a common construction load of 40 lb/sq ft is anticipated during pouring of concrete. It shall be borne in mind that any temporary construction load usual or unusual, is upon the responsibility of the contractor, who shall do all necessary calculations and take all required measures to accomodate these loads and modify the same by writing to the Engineer for his approval.

G) FORMWORK NOTES

1. These notes shall apply to formwork (shuttering) for all structural concrete.
2. Formwork complying with ACI SP-4, ACI 347 and ACI-303R shall be used.
3. Formwork shall be substantial, properly braced, and tied together to maintain position and shape and to resist all pressures to which they may be subjected.
4. Formwork shall be sufficiently tight to prevent leakage of concrete.
5. It is responsibility of the contractor to determine the size and spacing of studs and wales by the nature of the work and the height to which concrete is placed.
6. The entire inside surfaces of forms shall be coated with a suitable form release agent just prior to placing concrete. Form release agent is not permitted on the reinforcing steel.
7. It is responsibility of the contractor for the adequacy of all forms and remedying any defects resulting from their use.
8. Beam and girder soffits shall be erected with a camber of 1/2-inch in 20 feet and in case of flat slab, the camber shall be 1 inch in 14 feet; and sufficiently braced, shored, and wedged to prevent deflection.
9. Material of the forwmwork shall be used only after written approval of the Engineer.
10. Minimum time after which the forms can be removed shall be:

a. Columns18 hrs.

b. Side forms for girders and beams18 hrs.

c. Walls18 hrs.

d. Bottom forms of beam supported slabs14 days

e. Bottom forms of flat slabs21 days

f. Bottom forms of main beams and girders21 days