Introduction ::

National Disaster Management Authority (NDMA) has appointed Engineering Projects (I) Ltd as execution agency for construction of Multipurpose Cyclone Shelter (MPCS) Balisai kanya Vidyalaya, Purba Medinipur, West Bengal.

Cyclone shelter shall be RCC structure consisting of stilt +1st floor +2nd Floor + Roof. It is to be designed to withstand wind velocity of 300 km per hour. Floor & Roofs are designed for live load 500 kg/sqm as per IS 875-1964. It is designed to be earth quake resistant as the district fall in Zone IV & II.

Scope of work::

1. The board scope of geo-technical work shall be as under ::
   1.1 The mobilization of all tools & plants and accessories labour etc. at site including setting of boring rig for making 150 mm dia borehole.
   1.2 Collection of disturbed & undisturbed samples and conducting Standard Penetration Test (SPT) at different depths as per BIS specification.
   1.3 Carrying of samples to the laboratory and performing laboratory test on disturbed and undisturbed and remodeled samples to find out LL, PL, Sieve Analysis, Hydrometer Analysis, direct shear test. Unconfined compression test, tri-axial test and determination of nature moisture content, Bulk Density, Sp. Gravity etc.
   1.4 Preparation and submission of detail report along with recommendation for suitable foundation system.
   1.5 Calculation of evaluation of safe bearing capacity & settlement of Soil, Pile load capacity (vertical & lateral) etc.

2. Geo-technical investigation for each site as per latest relevant BIS code. The investigation shall comprise of minimum 2 Bore logs upto the depth of minimum 25 metres.

3. During sinking of bore holes soil samples both in disturbed and undisturbed conditions to be collected for laboratory tests. The disturbed samples would be subjected to tests to obtain soil index properties. The undisturbed soil samples, however, would be used mainly for conducting tests to obtain shear strength parameters as well as consolidation characteristics of the soil representing the strata.

4. The formation at the site is to be reported for various layers present at their respective depths along with their thickness in bore-log data. As ground water table location influences the method of construction of foundation at a site its location also bees to be found out.

5. Conducting soil investigation work at all the locations shown in Annexure, including preparation of drawings & report covering all parameters and requirements as per latest I.S code & standards.