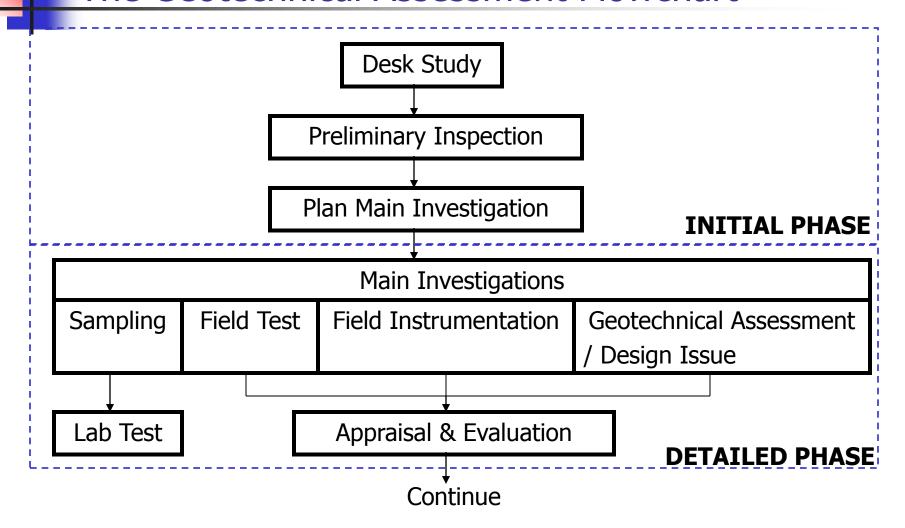




The Geotechnical Assessment Flowchart

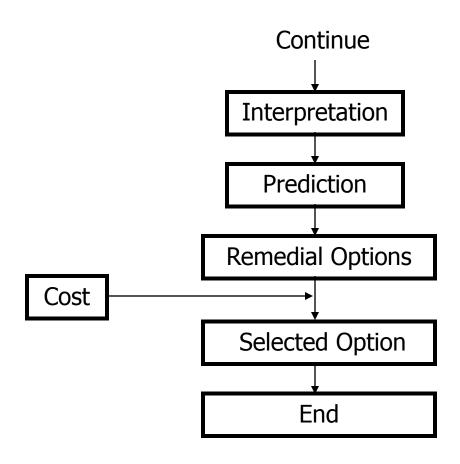
Ir Dr Mohamad Nor Omar Cawangan Kejuruteraan Jalan & Geoteknik JKR Malaysia

The Geotechnical Assessment Flowchart





The Geotechnical Assessment Flowchart



The Geotechnical Assessment Process

INITIAL PHASE

Desk Study

Collect information about project ("History") eg. type of foundation, as-built drawings, specifications, building use, who design and supervise, etc.

Preliminary Inspection Identify existing problems/defects ("Symptoms") eg. cracking, settlement, distortion, tension cracks, water table, etc.

Plan Main Investigation To develop testing and assessment plan, types of test, sampling locations, no of samples, budgeting and scheduling etc.

The Geotechnical Assessment Process

Sampling and Testing

DETAILED PHASE — — — — — — — — — — — — — — Sampling and Testing ("Diagnosis") eg.

- borings, test pits, observation wells, seismic exploration – evaluate soil profile and ground water levels
- → soil and foundation load testing to evaluate I load carrying capacity and settlement data of soil
- field instrumentation (piezometers, tiltmeters, I inclinometers, settlement markers, etc)

Geotechnical Assessment

Check for design adequacy ("Diagnosis") eg. to carry out settlement analysis, stability analysis, bearing capacity analysis and design check based on as-built drawings or information from field survey, etc

The Geotechnical Assessment Process

INITIAL PHASE

Interpretation of Results

Identify CAUSE of problem/defects eg. design inadequacy, construction errors, maintanance, etc

Prediction

eg. Existing geotechnical capacity, rate of settlement, etc

Remedial Options

The Proposal ("Treatment")
eg. rehabilitate, repair, strengthening, re-build
or "do-nothing"