
APPENDIX B

Laboratory Tests

Moisture Content (ASTM D2216) and Unit Weight (ASTM D2937) determinations were performed on selected samples as an aid in the classification and evaluation of soil properties. The test results are presented on the Logs of Borings at the appropriate sample depths.

Three Atterberg Limits tests (ASTM D4318) were performed on selected soil samples to evaluate the liquid and plastic limits to aid in soil classifications. The test results are summarized on the Logs of Borings at the appropriate sample depths. Graphic presentations of the test results are provided on Plate B-1.

Three Sieve Analysis tests (ASTM D6913) were performed on selected soil samples to evaluate the gradation characteristics of the soils and to aid in soil classification. Graphic presentations of the grain size distributions are provided on Plate B-2.

One one-inch Ring Swell test was performed on a remolded sample to evaluate the swelling potential of the near-surface soils. The test results are summarized on Plate B-3.

Six Uniaxial Compressive Strength tests (ASTM D7012) were performed on selected rock cores to evaluate the unconfined compressive strength of the rock materials encountered. Test results are presented on Plate B-4.

Two Unconsolidated Undrained Triaxial Compression tests (ASTM D2850) were performed on selected soil samples to evaluate the undrained shear strength of the in-situ soils. The approximate in-situ effective overburden pressure was used as the applied confining pressure for the relatively “undisturbed” soil sample. The test results and the stress-strain curves are presented on Plates B-5 and B-6.

Two Direct Shear tests (ASTM D3080) were performed on selected samples to evaluate the shear strength characteristics of the material tested. The test results are presented on Plates B-7 and B-8.

Three laboratory Resistance (R) Value tests (ASTM D2844) were performed by Ninyo & Moore on selected bulk samples of the near-surface soils to evaluate the pavement support characteristics of the soils. The test results are presented on Plates B-9 through B-11.