

SOIL TESTING LABORATORY MANUAL

Ming Xiao

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PREFACE

This laboratory soil testing manual provides a detailed guide of fourteen common laboratory soil tests. The manual follows the ASTM standards published in the 2006 annual book. This manual can be used as a textbook in civil engineering undergraduate program as well as a reference in the geotechnical engineering practice. Each laboratory testing includes a brief introduction of the theoretical background, the applicable ASTM references, the types of soils and other materials needed, specimen preparation, the apparatus and tools needed, test procedure, and detailed data collection process. Each laboratory testing is explained using sufficient photo illustrations and includes detailed sample test results.

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