SOIL STRENGTH
AND
SLOPE STABILITY

by
J. Michael Duncan
Stephen G. Wright

Visually informative with more than 250 illustrations, Soil Strength and Slope Stability is a complete and practical resource for geotechnical engineers, engineering geologists, civil engineers, geologists, environmental engineers, and students.

Through clear, concise language and practical examples, Soil Strength and Slope Stability describes state of the art methods for evaluating soil strength, and for analysis, design and stabilization of slopes in soil. The principles of limit equilibrium analysis, and appropriate use of computer programs are emphasized. Methods are described for checking the results of complex analyses, and for presenting results of slope stability analyses clearly. These are illustrated through many examples.

Written by two recognized experts in the field, Soil Strength and Slope Stability features:

- Case histories of landslides, embankment failures, excavation slope failures
- Principles that govern the shear strength of soils, including shear strength of municipal solid waste
- Methods for estimating and evaluating shear strengths based on back analysis of slope failures and stable slopes
- Explanations of the conditions that slopes must be designed to endure
- Detailed explanations of analysis methods for short-term and long-term stability, rapid drawdown, earthquake, and partial consolidation
- A wide range of analysis methods, methods for verifying results, and advice on presenting the results of slope stability analyses, including the importance of using multiple and/or independent methods
- Methods for repairing failed slopes and stabilizing marginally stable slopes

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