

VOL. 111 NO. 4. APR. 1985

ISSN 0733-9410
CODEN: JGENDZ

Journal of
**Geotechnical
Engineering**

AMERICAN SOCIETY OF CIVIL ENGINEERS

GEOTECHNICAL ENGINEERING DIVISION

AMERICAN SOCIETY OF CIVIL ENGINEERS

BOARD OF DIRECTION

President

Richard W. Karn

Past President

S. Russell Stearns

President Elect

Robert D. Bay

Vice Presidents

John A. Focht, Jr.

Louis M. Laushey

James E. McCarty

Celestino R. Pennoni

Directors

Glynn D. Barranger

Jose J. Conea

Donald A. Duples

Robert C. Esterbrooks

Donn E. Hancher

Ronald C. Johnson

John A. Lambie

E. Walter LeFevre

LaVere B. Merritt

Stephen C. Mitchell

Bernard P. Monahan

James P. Nalmsmith

Anthony A. Nolan

Robert A. Perreault, Jr.

Daniel F. Seidel

Francisco J. Serna

Robert R. Snell

Wesley E. Taft

Elias C. Tonias

David A. Van Horn

Walter E. Woodford, Jr.

GEOTECHNICAL ENGINEERING DIVISION

Executive Committee

James P. Gould, *Chairman*

John T. Christian, *Vice Chairman*

Robert D. Darragh

William F. Marcuson, III, *Secretary*

Joseph M. De Salvo, *Management Group E Contact Member*

Jey K. Jeyapalan, *News Correspondent*

Richard D. Woods, *News Correspondent*

Publications Committee

Tuncer B. Edil, *Chairman and Editor*

Bernard D. Alkire

Donald G. Anderson

John E. Anderson

Amr K. Azzouz

Gregory B. Baecher

S. S. Bandyopadhyay

Robert W. Bruhn

Gonzalo V. Castro

Jean-Lou Chameau

Umakant Dash

Kenneth R. Demars

Bengt H. Fallenius

Richard J. Fragaszy

Arley G. Franklin

Dimitri A. Grivas

Paul F. Hadala

Allen W. Hatheway

William H. Hightner

Robert D. Holtz

William N. Houston

Yang H. Huang

Mary Ellen Hynes-Griffin

M. Ayub Iqbal

Jey K. Jeyapalan

Robert C. Kirby

Roger Kuhlmeier

Branko Ladanyi

A. Stanley Lucks

William F. Marcuson, III

Paul W. Mayne

S. V. Nathanael

Edward A. Nowatzki

Jean H. Prevost

Jose M. Rössset

Adel S. Saada

Surendra K. Saxena

Robert L. Schiffman

Charles W. Schwartz

Woodland G. Shockley

Ronald E. Smith

Mehmet T. Turmay

Y. P. Vaid

T. Leslie Youd

William F. Marcuson, III, *Exec. Comm. Contact Member*

PUBLIC SERVICES DEPARTMENT

David R. Dresia, *Department Head, Publications*

Journals

George E. Schindler, Jr., *Manager*

Dolores Oetting, *Chief Copy Editor*

Louise Kahan, *Copy Editor*

Ellen Shapiro, *Copy Editor*

Kaye Yates, *Copy Editor*

Reference Publications

Melanie G. Edwards, *Manager*

EXECUTIVE OFFICERS

Edward O. Pfrang, *Executive Director*

Donald A. Buzzell, *Assistant Executive Director*

Michael N. Salgo, *Treasurer*

Elmer B. Isaak, *Assistant Treasurer*

EXECUTIVE STAFF

Joseph A. DeFiglia, *Administrator, Management Information Services*

David R. Dresia, *Department Head, Publications*

Richard A. Jeffers, *Controller, Financial Services*

Edwin Jones, *Department Head, Technical Affairs*

Albert W. Turchick, *Administrator, Technical Services*

George K. Wadlin, *Administrator, Education Services*

R. Lawrence Whipple, *Department Head, Educational and Professional Affairs*

COMMITTEE ON PUBLICATIONS

Glynn D. Barranger, *Chairman*

Jose J. Correa, *Vice Chairman*

Stephen C. Mitchell

Daniel F. Seidel

Wesley E. Taft

David A. Van Horn

PERMISSION TO PHOTOCOPY JOURNAL PAPERS

Permission to photocopy for personal or internal reference beyond the limits in Sections 107 and 108 of the U.S. Copyright Law is granted by the American Society of Civil Engineers for libraries and other users registered with the Copyright Clearance Center, 21 Congress Street, Salem, Mass. 01970, provided the appropriate fee is paid to the CCC for all articles bearing the CCC code. Requests for special permission or bulk copying should be addressed to the Manager, Journals, American Society of Civil Engineers. Copies of reprinted papers can be ordered by using the coupon published in *ASCE News* and *ASCE Publications Information*.

CONTENTS

Settlement Analysis of Embankments on Soft Clays <i>by G. Mesri and Y. K. Choi</i>	441
Hydraulic Conductivity Tests on Compacted Clay <i>by Stephen S. Boynton and David E. Daniel</i>	465
1-D Pollutant Migration in Soils of Finite Depth <i>by R. Kerry Rowe and John R. Booker</i>	479
Evaluation of Design Methods for Vertical Anchor Plates <i>by Edward A. Dickin and Chun F. Leung</i>	500
Finite Element Analyses of Lock and Dam 26 Cofferdam <i>by G. Wayne Clough and Thangavelu Kuppasamy</i>	521

The Journal of Geotechnical Engineering (ISSN 0733-9410) is published monthly by the American Society of Civil Engineers. Publications office is at 345 East 47th Street, New York, NY 10017-2398. Address all ASCE correspondence to the Editorial and General Offices at 345 East 47th Street, New York, NY 10017-2398. Allow six weeks for change of address to become effective. Subscription price to members is \$22.00. Nonmember subscriptions available; prices obtainable on request. Second-class postage paid at New York, NY and at additional mailing offices.

POSTMASTER: Send address changes to Journal of Geotechnical Engineering, ASCE, 345 East 47th Street, New York, NY 10017-2398.

The Society is not responsible for any statement made or opinion expressed in its publications.

TECHNICAL NOTES

Paper 19629

Punch-Through Instability of Jack-Up on Seabed
by Edmund C. Hambly 545

DISCUSSION

Paper 19625

Conventional and Probabilistic Embankment Design, by Verne McGuffey, Dimitri Grivas, John Iori, and Zenon Kyfor (Oct., 1982. Prior Discussions: July, 1984).
closure 553

SI Units for Geotechnical Engineering, by the Committee on Definitions and Standards of the Geotechnical Engineering Division (Dec., 1983).
by Richard S. Ladd 554
by Bryant Mather 558