

MICHAEL B. MOSCROP, M.Sc., PE, RGE
Geotechnical Engineer
Principal



PROFESSION

Geotechnical Engineer

REGISTRATIONS

Registered Civil Engineer –
State of California

Registered Geotechnical Engineer
–State of California

EDUCATION

Master of Science in
Civil Engineering (Geotechnical
Engineering), California State
University at Long Beach

Bachelor of Science with Honors,
Geography, Dept. of
Geographical Sciences,
Huddersfield University,
England, 1985

Numerous Seminars and
Short Courses

**PROFESSIONAL
EXPERIENCE**

GMU Geotechnical Inc.

(2005 – Present)

Principal, Geotechnical Engineer

Lejman Geotechnical Group
Incorporated

(1996-2005)

Vice President, Principal
Engineer

**PROFESSIONAL
AFFILIATIONS**

ACI

ASTM

ASCE - Member

Portland Cement Association

CalGeo - Member

SUMMARY OF EXPERIENCE & QUALIFICATIONS

Project manager, engineer and expert witness for forensic evaluations of residential, commercial, and industrial construction, primarily for the legal and insurance professions. Geotechnical review services for the County of Orange. Responsibilities include expert testimony, attendance and participation in mediation, expert meetings and settlement conferences, preparation of declarations and exhibits/displays for mediation and trial. Project management, maintaining client contact, development and implementation of subsurface investigations, site inspections, document research and review, engineering analysis, formulating repair recommendations, report writing, proposal and estimate preparation.

Lejman & Lee, Incorporated

Project Engineer/Project Manager – June 1990, to November, 1996

Project manager and engineer for forensic evaluations of distress to residential, commercial and industrial structures, primarily for the insurance and legal professions. Responsibilities included project management, maintaining client contact, development and implementation of subsurface investigations, sampling and geotechnically logging subsurface exploration, site inspections, geotechnical cross-sections, seismic analysis, document research and review, engineering analysis, formulating repair recommendations, report writing, proposal and estimate preparation.

Extensive experience in the design, installation, operation, monitoring, data reduction and engineering analysis of results of geotechnical field instrumentation. These include slope inclinometers, tiltmeters, tensiometers, manometers, pneumatic and open standpipe piezometers, settlement plates and crack monitors.

Additional projects involved with included: residential and commercial development, large landslide investigations, dredging studies, and numerous infrastructure projects including metering stations, highway bridges, RCB culverts, large diameter pipelines and large highway embankment over soft alluvium.

Responsibilities also entailed supervising, scheduling, training and hiring laboratory, field, staff engineering and drafting personnel. Supervised laboratory management and testing, with duties including: assigning testing programs, scheduling, evaluating data reduction and validity, quality assurance, overseeing testing, equipment procurement and calibration.

Lejman & Lee, Incorporated

Lab Manager/Staff Engineer — June, 1988 to June, 1990

Laboratory: Responsible for the management of geotechnical testing. This included assigning and overseeing testing, implementing lab programs through completion, and evaluating data validity. Responsible for training lab personnel in all aspects of testing, including triaxial shear strength determinations. Maintained, calibrated, updated and purchased lab equipment. Designed, built, and implemented an automated triaxial testing system, automated and computer-controlled direct shear testing apparatus.

Field Technician: Responsible for numerous grading projects. Carried projects from initial inspection through to report writing and drafting of appurtenant maps. Duties also included training field personnel. Construction monitoring involved pile driving, caisson installation and repair, stone columns, drilled shafts, RCB culvert, large diameter pipelines and compaction grouting operations.

Staff Engineer: Responsible for the implementation of subsurface investigations, primarily for forensic evaluations and damage investigations of commercial and residential construction. Duties included document research and review, geological logging of borings and test pits, manometer surveys, distress inventories, evaluation and engineering analysis

of results, and report preparation. Responsible for the installation, monitoring, data reduction, and interpretation of geotechnical instrumentation.

Lejman & Lee, Incorporated

Field/Laboratory Technician – October, 1986 to June, 1988

Performed all facets of laboratory testing. Assisted on geotechnical investigations for infrastructure projects and distress evaluations. Installed and monitored geotechnical instrumentation, including inclinometers, pneumatic transducers, tiltmeters, crack monitors and settlement plates. Performed a wide range of drafting, data reduction and computer analysis. Field technician on large and small residential, commercial and infrastructure grading projects.

PAPERS AND SPEAKING ENGAGEMENTS

California Geotechnical Engineers Association Annual Conference, Carmel, California, April 12, 2003.
Subject: Slab Moisture Intrusion.

Oxnard and Ventura School Districts; Workshop for Design, Construction and Management Team, May, 1998.
Subject: West Slabs, A Titanic Issue – or Just a Passing Iceberg?

Moscrop, M. B., (1999) “Moisture Transmission Through Concrete Floor Slabs-On-Grade” Unpub. M. Sc. Dissertation, California State University Long Beach

Moscrop, M. B., (1985) “The influence of Topography on the Spatial Dimensions and Temporal Variations of the Dynamic Hillslope Contributing Area in a Small Sub-Catchment of Low Relief.” Unpub. B. Sc. Dissertation, Dept. of Geographical Sciences, Huddersfield University.

Moscrop, M. B., et al. (1985) “Peat Erosion and Reservoir Sedimentation in the Southern Pennines.” Unpub. B. Sc. Thesis, Dept. of Geographical Sciences, Huddersfield Polytechnic.

SEMINARS AND SHORT COURSES

AMERICAN SOCIETY OF CIVIL ENGINEERS: 28th Spring Seminar; Lateral Spread & Impact Fill Placement, Dr. L. Youd, Dr. T. Stark & Dr. P. Liu, April, 2005.

CALIFORNIA GEOTECHNICAL ENGINEERS ASSOCIATION: “In-Situ Density Testing using TDR; Advances in Slope Inclinometer Data Analysis; Grading Code, Guidelines and Standards of Practice”, Gary Durham, Erik Mikkelsen, Dr. Coduto, Kauai, Hawaii, April 6 – 8, 2005.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Pavement Design Seminar by Steve Marvin & Mike Costello, Santa Ana, California, September 24, 2004.

SOIL RETENTION SEMINAR: Sponsored by Soil Retention Systems, Lecture by Dov Leshchinsky, Carlsbad, California, February 24, 2004.

STARK CONSULTANTS, INC: “Analysis of Landslides: Shear Strengths, Testing, and Stability Methods”, Short Course by Dr. Timothy D. Stark, P.E., Los Angeles, California, March, 2003.

SLOPE INDICATOR: Short Course on Data Reduction & Error Correction for Inclinometers by Erik Mikkelsen, Ventura, California, September 17 & 18, 2002.

SOUTHERN CALIFORNIA EARTHQUAKE CENTRE, “Recommended Procedures for Implementation of DMG Special Publication 117: Guidelines for Analyzing and Mitigating Landslide Hazards in California”, USC, June 20 - 21, 2002.

GREGG IN-SITU, INC.: A Short Course on Cone Penetration Testing, presented by Dr. Peter K. Robertson, University of Alberta, Canada and David J. Woeller, Conetec Investigation, Ltd., Long Beach, California, May 6, 2002.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Landslides: Shear Strengths and Stability Analysis, Dr. T. Stark, January 2001.

UNIVERSITY OF CALIFORNIA, BERKELEY: Evaluation & Mitigation of Seismic Hazards Short Course, Dr. R.B. Seed, Dr. I.M. Idriss, Dr. G.R. Martin, Dr. N.A. Abrahamson, Dr. J.D. Bray, Dr. J.P. Stewart, August 17 - 19, 2000.

COLORADO STATE UNIVERSITY: Building on Expansive and Collapsing Soils, Dr. J. Nelson, April, 2000.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 23rd Spring Seminar, K Ishihara, R. Whitman, J. Stewart and J. Bartlet, April, 2000.

POST-TENSIONING INSTITUTE: Design of Foundations on Expansive Soils, Houston, Texas, November, 1999.

SOUTH COAST GEOLOGICAL SOCIETY: Geotechnical Applications of Time Domain Reflectometry (TDR) with Applications to Remote Landslide Monitoring:, W.F. Kane, Ph. D., June 1999.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 22nd Spring Seminar, R. Peck, R.G. Goodman and J. Rogers, May 1999.

WEST COAST CASUALTY’S: Annual Construction Defect Seminar, May, 1999.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Geotechnical Engineering Division: Long Term Performance of Compacted Fills and Embankments, Dr. I. Noorany. March, 1999.

LA BASIN GEOLOGICAL SOCIETY: Ground Fissures in the Southwestern United States: “An Increasing Geotechnical Challenge”, Dr. R.J. Shlemon, February, 1999.

WORLD OF CONCRETE: “Solving Moisture-Related Problems with Slabs-on-Grade”, Peter Craig & Herman Protze III, Jan. 1999, Las Vegas, Nevada.

WORLD OF CONCRETE: “Troubleshooting Concrete Cracks”, A. Gustaferrero & C. Turton, Jan., 1999, Las Vegas, Nevada.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 21st Annual Spring Seminar, “Soil Liquefaction Engineering in a Rapidly Changing World”, Raymond B. Seed, Ph.D., March, 1998.

POST-TENSIONING INSTITUTE: Current Practice and Advancements of Post-Tensioned Residential Slabs on Expansive Soil, November, 1997.

ACADEMY OF TEXTILES AND FLOORING: Hard Surface Inspectors Course - Inspecting Resilient, Ceramic and Wood Flooring, October, 1997.

ACADEMY OF TEXTILES AND FLOORING: Vapor Emission Testing and Moisture Related Flooring Failures on Concrete Foundations, October 20 - 25, 1997.

AMERICAN CONCRETE INSTITUTE: Concrete Slabs on Grade, October, 1997.

CALIFORNIA GEOTECHNICAL ENGINEERS ASSOCIATION: Design and Construction Guidelines for Downdrag on Uncoated and Bitumen-Coated Piles, Dr. Jean-Louis Briaud, June, 1997.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 2nd Annual Seminar on Issues in Forensic Engineering “The Engineer as an Expert Witness”, UCI, May, 1997.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 20th Annual Spring Seminar: Geosynthetics in New and Emerging Uses, R.M. Koerner, May, 1997.

UNIVERSITY CALIFORNIA IRVINE: California Construction Defect Law for Community Associations, April, 1997.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Geotechnical Engineering Group: Seismic Design of Foundations, February, 1997.

CHEMICAL LIME COMPANY: Lime Stabilization: A Technical Overview, D.N. Little, Ph.D., P.E., February, 1997.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Geotechnical Engineering Group: Seismic Performance of Hillside Fills, A. Kropp, September, 1996.

ASPHALT INSTITUTE: Asphalt Pavements-Principles of Construction of Quality Hot-Mix, May, 1996.

ASPHALT INSTITUTE: Asphalt Technology Workshop, Superpave-The Future of Asphalt Mix Design, May, 1996.

CALIFORNIA GEOTECHNICAL ENGINEERS ASSOCIATION: Soil Design Parameters for Post-Tensioned Concrete Slabs, Dr. R. Lytton, May, 1996.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 19th Annual Spring Seminar: Earthquake Induced Liquefaction, I.M. Idriss, April, 1996.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Geotechnical Engineering Group: Seismic Behavior and Stability of Embankment Dams, Dr. F.I. Makdisi, December, 1995.

SOUTH COAST GEOLOGICAL SOCIETY: Geotechnical and Practical Considerations for Design of Shallow Foundations Bearing on Expansive Soils, Dr. W.K. Wray, June, 1995.

AMERICAN SOCIETY OF CIVIL ENGINEERS: Geotechnical Engineering Group: Interpretation and Comparison of Collapse Measurement Techniques, Dr. S.L. Houston and Dr. W.N. Houston, September, 1994.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 17th Annual Spring Seminar; Slope Stability Evaluation and Analysis, J. Duncan, Ph.D., April, 1994.

BRAINARD-KILMAN: Geotechnical Laboratory Testing Short Course Triaxial and Permeability Testing, W. DeGroot, February, 1991.

AMERICAN SOCIETY OF CIVIL ENGINEERS: 13th Annual Spring Seminar in Soft Ground Engineering by C. Ladd, April, 1990.

GONZAGA UNIVERSITY: Soil Compaction Short Course by F.C. Budinger, G.E., October, 1989.

UNIVERSITY OF MISSOURI-ROLLA: 15th Annual Quality Geotechnical Laboratory Testing Short Course, May, 1989.