

THE COLLIN GROUP, LTD

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DR. JAMES G COLLIN, P.E.

SPECIALTY/SKILLS:

Earth Retaining Structures, Ground Improvement,
Geosynthetics, Forensic Engineering

GEOGRAPHIC BASE: Bethesda, MD & Boulder CO

TYPE OF COMPANY: Corporation

RESUMÉ

DR. JAMES G COLLIN, P.E.

EDUCATION

PH.D. - University of California, Berkeley, CA - 1985

M.S.C.E. - George Washington University, Washington, DC - 1980

B.S.C.E. - Union College, Schenectady, NY - 1976

**LICENSED
PROFESSIONAL
ENGINEER:**

AL, AK, CT, DC, FL, GA, ID, IL, KS, MA, MD, MN, MS, MT, NC, NH,
NJ, NV, NY, OH, PA, TN, TX, UT, VA, WV, WI

**PROFESSIONAL
SOCIETIES**

Member, American Society of Civil Engineers

Member, Deep Foundations Institute

Member, ASTM

Member, North American Geosynthetics Society

Member, International Geosynthetics Society

Member, International Society for Micropiles

Member, International Society of Soil Mechanics and Foundation Engineering

**PROFESSIONAL
COMMITTEES**

ASCE Geosynthetics Committee (Chairman)

DFI Ground Improvement Committee

International Geosynthetics Society (past board member)

**PRINCIPAL
PROFESSIONAL
DISTINCTIONS**

Wallace Hayward Baker Award Winner 2013: Geo-Institute of ASCE

**PROFESSIONAL
EXPERIENCE AND
BACKGROUND**

PRINCIPAL, THE COLLIN GROUP, LTD., SEPT 1995 TO PRESENT

Dr. Collin founded The Collin Group, Ltd., in 1995. He was author of the National Highway Institutes “Ground Improvement Methods Manual,” “Soil Slope and Embankment Design Manual”, “Slope Maintenance and Slide Restoration”, and “Shallow Foundations Manual”. Dr. Collin is also a certified instructor for the U.S. DOT, Federal Highway Administration courses on Ground Improvement, Geosynthetic Design and Construction Guidelines, Shallow Foundations, Soil Slopes and Embankments, Earth Retaining Structures, MSEW and RSS Design and Construction Guidelines, Slope Maintenance and Slide Restoration, and Geosynthetics. He was recognized by NHI as an “Instructor of Excellent” for 2008, 2009, and 2011.

Dr. Collin has led the use of column-supported embankments on load transfer platforms in the United States. Over the last decade he has been the design engineer of record for over 15 column supported embankment projects across the US. Projects have included bridge approach embankment support in NJ, TX, IA, MN, FL, and WA, support of oil storage tanks in NJ and Louisiana, support of MSE walls, and support of office buildings and townhouses in NJ and Alabama. The design methodology used to design these structures was pioneered by Dr. Collin, and it has contributed to the growing use of column supported embankments with load transfer platforms. His leadership in engineering this technology has led to wide-spread use throughout the U.S. and has expanded use worldwide. Dr. Collin has also conducted research on this ground improvement technique. He was the principal investigator for an FHWA research program to develop design guidelines for column supported embankments (Collin, J.G., Han, J., and Huang, J. (2005), “Design Recommendations for Column Supported Embankments” Federal Highway Administration FHWA-HRT). This research was continued in the SHRP2R02 project to provide additional guidance for designers and specifiers’ of CSE. He is also part of a team that is developing the new FHWA Design Manual on Deep Mixing for Embankment and Foundation Support.

More recently, Dr. Collin was a principal investigator for the SHRP2R02 project on “Geotechnical Solutions for Soil Improvement, Rapid Embankment Construction, and Stabilization of the Pavement Working Platform.” The objectives of this 4 year research program included the

evaluation of ground improvement and rapid construction techniques for building embankments over soil soils (i.e., column supported embankments, wick drains, etc.), the development of a catalogue of materials and systems for rapid renewal projects; guidance for design and QC/QA procedures, methods for estimating costs, and sample specifications for the identified geotechnical materials, systems and technologies. The culmination of the research program was the development of a web based Ground Improvement selection and guidance system.

Dr. Collin has served as an expert witness for over 100 geotechnical and or construction related failures both in the US and abroad.

As an adjunct professor at the University of Maryland, Dr. Collin developed two new graduate engineering courses for the University. One deals with different methods of soil improvement (i.e., grouting, deep soil mixing, jet grouting, micro piles (pin piles), soil nailing, light weight fill (including fly ash), wick drains, dynamic compaction, and stone columns). The other course is titled Designing with Geosynthetics and covers the design and specifications of geosynthetics.

Dr. Collin has served on the Geotechnical Review Board (GRB) for Fairfax County, Virginia since 1995. The GRB reviews all geotechnical reports submitted to the County prior to issuing building permits.

Dr. Collin possesses a wide range of geotechnical engineering experience involving reinforced soil structures, geosynthetics, embankments over soft soils, deep and shallow foundations, retaining walls, excavation support systems, soil nailing, pin piles, tiebacks, slurry walls, decking and building facade support. He has been responsible for technical consultation and overview on major engineering projects and has been involved in contract negotiation and supervision of construction operations. Dr. Collin has been engineer of record on over 100 projects that involved the production of construction drawings and contract specifications. In addition to Dr. Collin's extensive design experience he has managed large construction project for a national construction company.

Additional experience for Dr. Collin includes: design of an underpinning system (micropiles/pin piles) to stop the vertical and lateral settlement of a 150-year old church caused by an adjacent excavation; design of a soil-cement arch, using finite element analysis, over an existing tunnel to minimize the increase in stress on the tunnel structure caused by the placement of 11 feet of fill; design of permanent tieback retaining wall systems and coordination of construction operations for roads and highways; design of frozen earth walls using finite element analyses; supervision and monitoring of installation of frozen retaining systems.

Adjunct Professor, Maryland University, September 1995 - 2003
Vice President, Tensar Earth Technologies, 1991-1995
Adjunct Professor, West Virginia University, 1992-1997
Manager Geotechnical Services, Woodward - Clyde Consultants, 1990-1991
Associate Professorial Lecturer, George Washington University, 1990-1991
Principal Engineer, Regional Manager, STS Consultants, Ltd., 1988-1990
Vice President, Design and Construction, Metropolitan Partnership, 1986-1988
Research Assistant, University of California, Berkeley, 1983-1985
Foundation Engineer, The George Hyman Construction Company, 1976-1982

PUBLICATIONS: Over 70.