

Proceeding of the 40th Highway Geology Symposium



BIRMINGHAM, ALABAMA
MAY 17-19, 1989

**PROCEEDING OF THE 40TH ANNUAL
HIGHWAY GEOLOGY SYMPOSIUM**

SYMPOSIUM VENUE

MAY 17-19, 1989

**SPONSORED BY
ALABAMA HIGHWAY DEPARTMENT**

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HIGHWAY GEOLOGY SYMPOSIUM History, Organization, and Function

Established to foster a better understanding and closer cooperation between geologists and civil engineers in the highway industry, the Highway Geology Symposium was organized and held its first meeting on February 16, 1950, in Richmond, Virginia. Since then, 40 consecutive annual meetings have been held in 27 different states. Between 1950 and 1962, the meetings were held east of the Mississippi River, with Virginia, Ohio, West Virginia, Maryland, North Carolina, Pennsylvania, Georgia, Florida, and Tennessee serving as the host states.

In 1962, the Symposium moved west for the first time to Phoenix, Arizona. Since then it has rotated, for the most part, back and forth from east to west. Following meetings in Texas and Missouri in 1963 and 1964, the Symposium moved to Lexington, Kentucky in 1965, Ames, Iowa in 1966, Lafayette, Indiana in 1967, back to West Virginia at Morgantown in 1968, and then to Urbana, Illinois in 1969. Lawrence, Kansas was the site of the 1970 meeting, Norman, Oklahoma in 1971, and Old Point Comfort, Virginia the site in 1972.

The Wyoming Highway Department hosted the 1973 meeting in Sheridan. From there it moved to Raleigh, North Carolina in 1974, back west to Coeur d'Alene, Idaho in 1975, Orlando, Florida in 1976. Rapid City, South Dakota in 1977, and then back to Maryland in 1978, this time in Annapolis. Portland, Oregon was the site of the 1979 meeting, Austin, Texas in 1980, and Gatlinburg, Tennessee in 1981. The 1982 meeting was held in Vail, Colorado, and in Stone Mountain, Georgia in 1983. The 35th meeting in 1984 was in San Jose, California, the 36th HGS was in Clarksville, Indiana, and the 37th meeting was held in Helena, Montana. Pittsburgh, Pennsylvania was the site of the 38th meeting, Park City, Utah hosted the 39th, and this year the 40th annual Highway Geology Symposium was held in Birmingham, Alabama.

Unlike most groups and organizations that meet on a regular basis, the Highway Geology Symposium has no central headquarters, no annual dues, and no formal membership requirements. The governing body of the Symposium is a steering committee composed of approximately 20 engineering geologists and geotechnical engineers from state and federal agencies, colleges and universities, as well as private service companies and consulting firms throughout the country. Steering committee members are elected for three-year terms, with their elections and re-elections being determined principally by their interests and participation in and contributions to the symposium. The officers include a chairman, vice chairman, secretary, and treasurer, all of whom are elected for a two-year term. Officers, except for the treasurer, may only succeed themselves for one additional term.

A number of three-member standing committees conduct the affairs of the organization. Some of these committees are: By-laws, Public Relations, Awards Selection, and Publications. The lack of rigid requirements, routing, and the relatively relaxed overall functioning of the organization is what attracts many of the participants.

Meeting sites are chosen two or four years in advance and are selected by the Steering Committee following presentations made by representatives of potential host states. These presentations are usually made at the steering committee meeting which is held during the Annual Symposium. Upon selection, the state representative becomes the state chairman and a member pro tem of the Steering Committee. Depending on interest and degree of participation, the temporary member may gain full membership to the Steering Committee.

The symposia are generally for two and one-half days, with a day-and-a-half for technical papers and a full day for the field trip. The symposium usually begins on Wednesday morning. The field trip is usually Thursday, followed by the annual banquet that evening. The final technical session generally ends by noon on Friday.

The field trip is the focus of the meeting. In most cases the trips cover approximately from 150 to 200 miles, provide for six to eight scheduled stops, and require about eight hours. Occasionally cultural stops are scheduled around geological and geotechnical points of interest. In Wyoming, the group viewed landslides in the Big Horn Mountains; Florida's trip included a tour of Cape Canaveral and the NASA space installation; the Idaho and South Dakota trips dealt principally with mining activities; North Carolina provided stops at a quarry site, and a nuclear generating site; in Maryland the group visited the Chesapeake Bay hydraulic model and the Goddard Space Center; the Oregon trip included visits to the Columbia River Gorge and Mount Hood; the Central Mineral Region was visited in Texas; and the Tennessee trip provided stops at several repaired landslides in Appalachia. The Colorado field trip consisted of stops at geological and geotechnical problem areas along Interstate 70 in Vail Pass and Glenwood Canyon, while the Georgia trip in 1983 concentrated on highway design and construction problems in the Atlanta urban environment. The 1984 field trip had stops in the San Francisco Bay area which illustrated the interaction of fault activity, urban landslides, and coastal erosion with the planning, construction, and maintenance of transportation systems. In 1985 the one day trip illustrated new highway construction procedures in the greater Louisville area. The 1986 field trip in Montana provided valuable information concerning geology associated with road construction in mountainous conditions. The 1987 field trip in Pittsburgh emphasized highway construction in a northeastern urban area with challenging geological conditions and informative geotechnical solutions. The Utah field trip in 1988 emphasized local geology and geological hazards of highway and dam construction and rock fall, landslide, and snow avalanche problems. Local geology of the Birmingham area and geotechnical problems of bridge maintenance were some of the highlights of the 1989 field trip.

At the technical sessions, case histories and state-of-the-art papers are most common with highly theoretical papers the exception. The papers presented at the technical sessions are published in the annual proceedings. Some of these proceedings are out of print, but copies of most of the last sixteen proceedings may be obtained from the treasurer of the Symposium, David Bingham, of the North Carolina Department of Transportation in Raleigh 27611. Costs generally range from \$5.00 to \$15.00, plus postage.



Highway Geology Symposium

MEDALLION AWARD WINNERS

Hugh Chase	1970
Tom Parrot	1970
Paul Price	1970
K. B. Woods	1971
R. J. Edmonson	1972
C. S. Mullin	1974
A. C. Dodson	1975
Burrell Whitlow	1978
Bill Sherman	1980
Virgil Burgat	1981
Henry Mathis	1982
David Royster	1982
Terry West	1983
Dave Bingham	1984
Vernon Bump	1986
C. W. "Bill" Lovell	1989

In 1969, the Symposium instituted an awards program, and with the support of Mobile Drilling Company of Indianapolis, Indiana designed a plaque to be presented to individuals who have made significant contributions to the Highway Geology Symposium over a period of years. The award, a 3.5" medallion mounted on a walnut shield and appropriately inscribed, is presented during the banquet at the Annual Symposium.



Highway Geology Symposium

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NOTE: Officer's term expires at conclusion of
1991 Symposium.

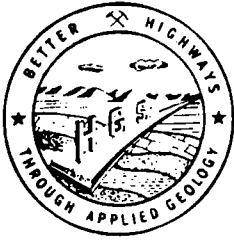
* Steering Committee term expires.



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Dr. Terry West Associate Professor Department of Earth & Atmospheric Sciences School of Civil Engineering Purdue University West Lafayette, Indiana 47907 Phone - (317) 494-3296	1991
Mr. W. A. Wisner Geologist Florida Department of Transportation Office of Materials and Research P. O. Box 1029 Gainesville, Florida 32602 Phone - (904) 372-5304	1990



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Robert G. Charboneau

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Paul Price

David L. Royster

Ed. J. Zeigler

Berke Thompson

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Burrell Whitlow
Vacant

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Terry Yarger (Western States)

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Jeff Hynes

Emeritus Members Committee

Terry West, Chairman
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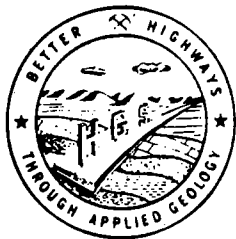
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Harry Ludowise
Willard McCasland

Historian/Reporter

Jeff Hynes

Mailing List Committee

Willard McCasland, Chairman
Bill Wisner
Vacant



Highway Geology Symposium

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FOR UPCOMING SYMPOSIUMS

1990 Meeting; 41st HGS
August 15-17, 1990
Albuquerque, NM

Coordinator: Ken White
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1991 Meeting; 42nd HGS
May, 1991
New York

Coordinator: Verne McGuffey
Assistant Director, Soil
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NYS DOT
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1220 Washington Avenue
Albany, NY 12232

1992 Meeting; 43rd HGS
August, 1992
Arkansas

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1993 Meeting; 44th HGS
May, 1993
Florida

Coordinator: Myron Hayden
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Tampa, FL 33620-5350

1994 Meeting; 45th HGS
August, 1994
Wyoming

Coordinator: Geology Branch
Wyoming Highway Department
Cheyenne, WY 82202-9019

1995 Meeting; 46th HGS
May, 1995
West Virginia

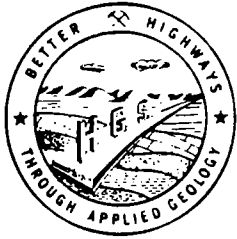
Coordinator: West Virginia Department
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1996 Meeting; 47th HGS
August, 1996
Oklahoma

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1997 Meeting; 48th HGS
May, 1997
East ... open

Coordinator:



Highway Geology Symposium

CHAIRMAN OF LOCAL ARRANGEMENTS - Continued . . .

1998 Meeting; 49th HGS
August, 1998
West ... open

Coordinator:

1999 Meeting; 50th HGS
May, 1999
Virginia (Golden Anniversary)

Coordinator:

TABLE OF CONTENTS

TITLE PAGE. i

HIGHWAY GEOLOGY SYMPOSIUM, History, Organization, and Function. ii

MEDALLION AWARD WINNERS v

STEERING COMMITTEE OFFICERS vi

STEERING COMMITTEE MEMBERS. vii

EMERITUS MEMBERS. x

STANDING COMMITTEES xi

CHAIRMAN OF LOCAL ARRANGEMENTS FOR UPCOMING SYMPOSIUMS. xii

TABLE OF CONTENTS xiv

PAPERS PRESENTED AT THE 40TH SYMPOSIUM

GENERAL OVERVIEW OF THE GEOLOGY AND NATURAL RESOURCES OF ALABAMA 1
 Bennett L. Bearden, Geological Survey of Alabama

ENGINEERING GEOLOGY AND GEOTECHNICAL ENGINEERING FOR A PRELIMINARY
 ROUTE ALIGNMENT STUDY FOR 25 MILES OF ARIZONA STATE ROUTE 87. 16
 Thomas H. Walker, Project Geologist, Sergeant, Hauskins & Beckwith
 Geotechnical Engineers Inc.

SUITABILITY OF BOTTOM ASH FOR INDIANA HIGHWAY CONSTRUCTION 37
 Wei-Hsing Huang and C. William Lovell, Purdue University

GEOGRID REINFORCEMENT FOR COCHRANE BRIDGE EMBANKMENT. 55
 Larry Lockett, Alabama Highway Department and Robert M. Mattox,
 Tensar Construction Products, Inc.

UPDATE ON STABL...PCSTABL5M 64
 E. Achilleos and C. William Lovell, Purdue University

DEMOLITION AND REMOVAL OF STRUCTURES PRIOR TO LAND RECLAMATION. 74
 Terry R. West and Quentin A. Gordon, Purdue University

SLOPE FAILURES ON HIGHWAY EMBANKMENTS HIGH IN SHRINK-SWILL CLAYS:
 PREVENTION AND REPAIR 114
 Scott F. Burns, William O. Hadley, Jack W. Mutchler, and
 Schaun M. Smith, Louisiana Tech University, Paul M. Griffin, Jr.,
 Louisiana Transportation Research Center

DESIGN APPLICATIONS OF THE WELDED WIRE WALL	131
K. Jeff Nelson and John R. Selvage, Selvage, Heber, Nelson & Assoc.	
INTEGRATED SLOPE STABILITY ANALYSIS USING MICROCOMPUTERS.	148
Sunil Sharma, University of Idaho	
HONDURAS HIGHWAY GEOLOGY.	160
Carlo Hugo Rivera Morales, SECOPT Geological Advisor, Departamento De Investigaciones Geologicas	
CONTRACT SPECIFICATION OPTIONS FOR RETAINING WALL DESIGN AND CONSTRUCTION: DISCUSSION OF CONSTRUCTION ALTERNATES AND CASE HISTORIES	172
John R. Wolosick, Chief Engineer, National Foundation Company, Inc.	
FINITE ELEMENT ANALYSIS OF A RIB-REINFORCED STEEL CULVERT	198
Sunil Sharma and James H. Hardcastle, University of Idaho	
FIRST WIRE ROPE NET ROCKFALL PROTECTIVE BARRIER INSTALLED AT THE GRAND CANYON NATIONAL PARK	216
Robert A. Thommen, Jr., Brugg Cable Products, Inc.	
SPECIAL TREATMENT OF MINE OPENINGS IN ROCK CUT SLOPES	223
E. M. Wright, Kentucky Department of Highways	
RECENT HIGHWAY TUNNEL PROJECTS IN THE APPALACHIAN MOUNTAINS	241
Richard Humphries and Randy Sullivan, Golder Associates Inc.	
ATTENDANCE LIST, 40TH ANNUAL HIGHWAY GEOLOGY SYMPOSIUM.	255
EXHIBITORS AND SPONSORS	259

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