

**PROFESSIONAL RESUME OF DAVID W. MALONE, PH.D., P.E.**

**I. General Information**

**Compendium:**

**Senior Technical Consultant**

Civil Engineer specializing in structural and engineering mechanics. He has over 30 years of practical experience in design, construction, manufacturing, and consulting. Dr. Malone's experience includes failure analysis of bridges, buildings, building systems, and components. He has special expertise in computer analysis of complex structures and additional expertise in the application of dynamics and engineering principles to analyze and reconstruct vehicular accidents, especially complex, multi-vehicle and multi-impact collisions and those involving highway or railroad intersection design, construction, and signing.

Dr. Malone has extensive testifying and litigation support experience.

**II. Professional Summary**

**Education:**

**Doctor of Philosophy**

Civil Engineering  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

**Master of Science**

Structural Engineering and Structural Mechanics  
University of California, Berkeley  
Berkeley, California

**Bachelor of Science**

Civil Engineering  
University of California, Berkeley  
Berkeley, California

## **Experience:**

Most recently Dr. Malone was a Principal Engineer at Exponent Failure Analysis Associates. Prior to that Dr. Malone was employed for 14 years at FTI Corporation where, since 1990, he served as Vice President and Director of the Civil/Structural/Construction Group. Dr. Malone also served as Technical Director of the Mid-Atlantic Region at the American Standards Testing Bureau. He has completed a number of specialized training courses, including "Wind Loads for the Design of Buildings and Other Structures", "How to Avoid Structural Failures: Lessons Learned", and "Structural Design of Industrial Facilities" from the ASCE Continuing Education Program; "Mechanics of Heavy Duty Trucks" from the University of Michigan Transportation Research Institute; and "Traffic Accident Analysis and Reconstruction" from George Washington University. Dr. Malone has been on the faculty of Purdue University and the American University, and an Adjunct Faculty Member at Ohio State University.

## **III. Professional Registration**

Registered Professional Engineer, Washington

## **IV. Professional Honors**

NASA/ASEE Fellow, Stanford University  
NASA Fellow, MIT  
Sigma Xi  
Kaiser Aluminum & Chemical Corporation Fellow  
Tau Beta Pi Engineering Honorary

## **V. Professional Societies**

American Society of Civil Engineers (ASCE)  
National Society of Professional Engineers (NSPE)

## **VI. Publications**

### **Selected Publications and Presentations**

"Masonry Wall and Wood Truss Construction Failures," pp. 902–905, Structures Congress '92, ASCE, April 1992 (with G.R. Wentz and T.P. McAllister).

"Roadway Design and Repair: Risks and Liabilities," Seminar for Joint Powers Authority, Contra Costa County, CA, October 1991 (with I. S. Jones).

"A Review of Current Knowledge and Regulatory Status Concerning the Health Aspects of Petroleum Asphalt as Used in the Hot Mix Industry," submitted to National Asphalt Pavement Association by American Standards Testing Bureau, Inc., December 1985 (with A. Kaplan and V. Morfopoulos).

"The Role of the Road Network in the Future Transportation System, A Vision of Your Future," 28th Annual Convention, National Asphalt Pavement Association, Phoenix, AZ, January 29-February 3, 1983.

"Experiences with Coal Transportation in the United States," Invited Participant and U.S. Representative, National Conference on the Adriatic, Brindisi, Italy, January 28, 1983.

"The Role of Model Building and Analysis in Policy Formation," The Academy for Contemporary Problems, June 1974 (with A.N. Christakis).

"Finite Elements and Dynamic Viscoelasticity," *Journal of Engineering Mechanics Division, ASCE*, 97, No. EM4, Proc. Paper 8293, pp. 1145-1158, August 1971 (with J. J. Connor).

## Selected Reports

"Role of Government Funding and Its Impact on Small Businesses in the Solar Energy Industry," Testimony before the Subcommittee on Energy, Environment, Safety, and Research of the U.S. House of Representatives Committee on Small Business, 8 November 1979, Committee Report, GPO, Washington, DC, 1980.

"Development of an Objectives Structure and the Outlines of a Planning Process for Franklin University," Pro-bono contribution of Battelle to Franklin University, 1975.

## Selected Book Chapters

"Developing a System for Evaluating a Variety of R & D Projects: Notes on the Effect of Managerial Climate," *Managing Research and Development Projects: Keeping Them on Track*, R. Szakony (ed.), Lamond Press, 1980.

"Probing Complexity in Social Systems." *Methodology of Social Impact Assessment*, Finsterbusch and Wolf (eds.), Dowden, Hutchinson and Ross, Inc., 1977 (with K. Kawamura).