

INFRASTRUCTURE

During the years following World War II, the United States built the greatest infrastructure in the modern world. As we move into the 21st century, however, it is clear that this infrastructure is deteriorating rapidly and that the need for rehabilitating it has become a matter of substantial urgency.

For decades, the senior professionals of Treadwell & Rollo have provided geotechnical, environmental, and earthquake consulting services in support of infrastructure projects. Bridges, highways, transit facilities, dams, sewers, and

ports require a variety of our services, including subsurface investigations, seismic analysis, groundwater studies, geologic studies, ground improvement, foundation engineering, dredged material disposal, and environmental geotechnology.

The scope of providing a solid foundation ranges from mini-piles and micro-piles in restricted access situations to larger-diameter piers and gravity foundations. In addition, Treadwell & Rollo evaluates and recommends innovative techniques to improve the ground itself so that

contaminated, swampy, or seismically-sensitive soils can be rendered suitable for building structures of virtually any kind.

Cost-effective and environmentally sound methods result in the solutions that are called for by our clients. Our emphasis is on staying at the forefront of practice and our training and experience support that effort.



Photograph by Donald D. Treadwell



Photograph by Donald M. Oman

The infrastructure supporting human activities includes complex and interrelated physical, social, ecological, economic, and technological systems such as transportation, energy production and distribution, water resources and waste management, communications, sustainable resources, and environmental protection.



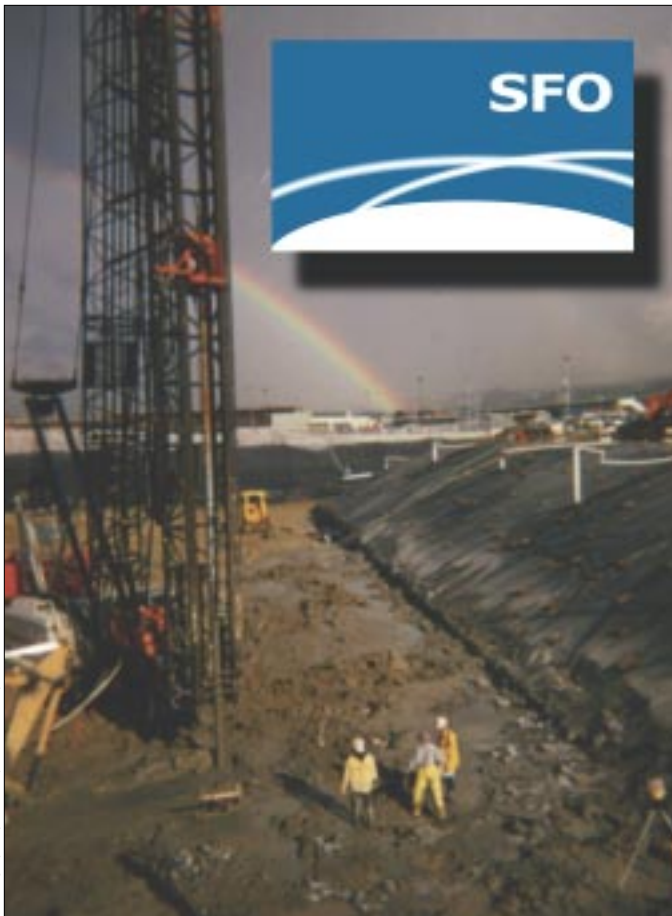
Photograph by Patrick L. DeNeale



REPORT CARD ON INFRASTRUCTURE

In March 2001, the American Society of Civil Engineers (ASCE) published a report on the condition of the nation's infrastructure. Led by an advisory council composed of civil engineers, ASCE graded ten infrastructure components, evaluating the condition, performance, capacity, and funding of each. The categories and grades were as follows: roads (D+), bridges (C), mass transit (C-), aviation (D), schools (D-), drinking water (D), wastewater (D), dams (D), solid waste (C+), and hazardous waste (D+). To this list, the 2001 advisory council added the categories of energy generation and navigable waterways – both of which received grades of D+.

ASCE estimates that investment totaling \$1.3 trillion would be needed over the course of a five-year period to remedy the problem – that is, to fix what is wrong now. More funding would be required to create any new infrastructure required. And, given the sizable population gains anticipated within the next few decades (see California Population below), the demands that will be placed on the nation's infrastructure will be considerable. More information on infrastructure needs can be obtained through the ASCE web site at www.asce.org.



Photograph by Christopher A. Ridley



Photograph by Donald D. Treadwell



Managing Editor: Andrea M. Oman
Graphics & Layout: F. Anthony Cerny
Technical Reviewer: Donald D. Treadwell

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amoman@treadwellrollo.com

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Treadwell & Rollo

Environmental and Geotechnical Consultants

501 14th Street
Third Floor
Oakland, CA 94612
510.874.4500
510.874.4507 FAX

555 Montgomery Street
Suite 1300
San Francisco, CA 94111
415.955.9040
415.955.9041 FAX

2 Theatre Square
Suite 216
Orinda, CA 94563
925.253.4980
925.253.4985 FAX