



NSPE Position Statement No. 1724—Infrastructure

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Infrastructure has a very broad definition and comprises the largest investment of money and resources that the United States has made. This infrastructure investment is deteriorating right before our eyes at a rate that cannot be sustained; therefore, a new and comprehensive review(s) of the whole of the U.S. infrastructure must be performed on a regular basis with an emphasis placed on the funding of maintenance and replacement funding as well as projecting the capital needs associated with growth.

The infrastructure of our nation includes the following:

- Highways, roads, and bridges;
- Water and wastewater treatment systems;
- Water transmission and distribution systems;
- Sewage collection systems;
- Dams and levees;
- Airports;
- Ports;
- Railroads and high-speed rail;
- Electric power grid; and
- Oil and gas pipelines.

Activities associated with infrastructure design, construction, operation, and maintenance, individually and cumulatively, work together to positively impact our economy through the creation and support of large numbers of jobs. Further, in order to be competitive in today's global market, it is imperative that our infrastructure be continually monitored and upgraded so that it properly performs the important functions for which it is designed and so that it is second to none in supporting our nation's industrial and commercial base. Without a strong infrastructure our national economic position, including our nation's workforce, production, health, safety, and overall welfare is at risk.

Appropriately funded infrastructure systems directly benefit the public's health, safety, and welfare. In addition to the need for long term operation and maintenance programs it is imperative that all future infrastructure projects be based upon strong and well considered long range planning programs. The long range planning will enable the operators and owners of our nation's infrastructure to properly assess the future capitalization necessary for design and construction of new and expanded systems as well as providing an objective mechanism to pay for the operation and maintenance costs associated with new and existing systems.

Technological advances and the economic growth that has resulted therefrom are tied directly to the vital role that properly designed, constructed and maintained infrastructure has provided. Without proper infrastructure systems the individuals who have created technological advances would have no place to live, the industries that create new technologies would not invest resources to build new facilities and all of the direct and indirect fiscal growth surrounding these facilities would not have occurred. These technological advances have improved all aspects of our lives and in several areas have led to increased longevity.

Furthermore, it is well settled that many other tangible benefits result from properly funded, designed, constructed, operated, and maintained infrastructure that is nondiscriminatory and benefits all in our society on an equal basis.

It is the position of the National Society of Professional Engineers (NSPE) that professional engineers play a key role in the planning, design, implementation, construction, operation, and maintenance of our nation's infrastructure systems, and that NSPE will continue to proactively support the legislative and administrative actions required to accomplish these goals.