

Engineers Give U.S. Infrastructure a 'D' Grade, \$2.2 Trillion Price Tag

WASHINGTON, DC, January 28, 2009 (ENS) - America's infrastructure gets an overall grade of "D" and needs \$2.2 trillion in repairs and upgrades over the next five years to meet adequate conditions, according to a new report by the nation's professional engineers.

The new 2009 Report Card for America's Infrastructure, released today by the American Society of Civil Engineers, ASCE, assigns an overall grade of D to the nation as well as individual grades in 15 infrastructure categories, but no grade is higher than C+.

"Decades of underfunding and inattention have endangered the nation's infrastructure," the engineers said today. Since the ASCE's last report card in 2005, there has been little change in the condition of America's roads, bridges, drinking water systems, and other public works.



Derelict train station in Detroit, Michigan (Photo by [Erin Kruczek](#))

But the cost of fixing these infrastructure problems has gone up. Deteriorating conditions and inflation have added hundreds of billions to the total cost of repairs and needed upgrades.

ASCE's current estimate of \$2.2 trillion is up from the \$1.6 trillion estimated in 2005.

"In 2009, all signs point to an infrastructure that is poorly maintained, unable to meet current and future demands, and in some cases, unsafe," the engineers warn.

"Crumbling infrastructure has a direct impact on our personal and economic health, and the nation's infrastructure crisis is endangering our future prosperity," said ASCE president D. Wayne Klotz, a professional engineer.

"Our leaders are looking for solutions to the nation's current economic crisis. Not only could investment in these critical foundations have a positive impact, but if done responsibly," said Klotz, "it would also provide tangible benefits to the American people, such as reduced traffic congestion, improved air quality, clean and abundant water supplies and protection against natural hazards."

With the nation's infrastructure receiving renewed attention from the White House, Congress, and the public as part of an economic stimulus package, the Report Card offers informed guidance from professional engineers on where funds would best be spent.

The report card gives solid waste management the highest grade, a C+. The condition of the nation's bridges receives the next highest grade, a C, while two categories, rail as well as public parks and recreation scored a C-.

All other infrastructure categories were graded D or D-, including: aviation, dams, hazardous waste, inland waterways, levees, roads, schools, transit and wastewater.

The 2009 Report Card was developed by an advisory council of 28 civil engineers representing each of the infrastructure categories, as well as a broad spectrum of civil engineering disciplines.



A damaged highway bridge in Marlboro, Massachusetts (Photo by [Richard Klein](#))

"The nation's infrastructure faces some very real problems, problems that pose an equally real threat to our way of life if they are not addressed appropriately," said engineer Andrew Herrmann, who chairs the Report Card for America's Infrastructure Advisory Council. "However, while it may not happen overnight, these problems are solvable if we have the right kind of vision and leadership."

Pennsylvania Governor Ed Rendell told reporters at the news conference called to release the ASCE Report Card that the country needs a federal capital budget to finance infrastructure repairs and upgrades, rather than taking those funds out of the government's operating budget.

"A capital budget needs to be financed, said Rendell, "over five to six years financing would be \$180 billion a year. That used to sound like a lot of money, but it is the proverbial drop in the bucket. It's doable, if there's a will, there's a way."

Funding could come from private investment, user fees or gas taxes as well as federal funds, the governor suggested, mentioning a meeting he had Tuesday in Philadelphia with private investors. "The message to me is - the money is available," Rendell said.

Americans want infrastructure upgraded and are willing to pay for it, Rendell said, citing the results of a public opinion poll he commissioned with New York City Mayor Mike Bloomberg and California Governor Arnold Schwarzenegger, co-chairs of the Building America's Future coalition.

Eighty-one percent of those surveyed said they would pay one percent more on their federal income tax to fund infrastructure improvements - including 90 percent of Obama voters and 71 percent of McCain voters.

But, said Rendell, "They want accountability. They want no political spending decisions; spending should be done by professionals. And the Number One area they want upgraded is energy. They want to build out the transmission grid."



High voltage power lines cross the Indiana landscape. (Photo by [Dave Emerson](#))

Energy infrastructure was the one positive note on the Report Card, rising from a grade of D to D+ due to the progress that has been made in grid reinforcement since 2005 and the substantial investment in generation, transmission and distribution expected over the next two decades.

Projected electric utility investment needs could be as much as \$1.5 trillion by 2030, according to the ASCE report.

"The longer we wait the more expensive it will be," said the Pennsylvania governor. This is as urgent an imperative as health care."

Even the category that received the highest grade, solid waste management, is threatened by a rising tide of problems, the engineers said today.

"The increasing volume of electronic waste and lack of uniform regulations for disposal creates the potential for high levels of hazardous materials and heavy metals in the nation's landfills, which poses a significant threat to public safety," the ASCE warned.

The relatively high grade for solid waste is due largely to the fact that more than a third of the 254 million tons of solid waste produced in the United States was recycled or recovered, representing a seven percent increase since 2000, and that per capita generation has remained relatively constant over the last 20 years.

Debating on the Report Card at a barely passing grade of D-, the condition of the nation's levees, and their impact on public health, safety and welfare, requires significant investment and leadership, the engineers say.

More than 85 percent of the nation's estimated 100,000 miles of levees are locally owned and maintained, the engineers say. The reliability of many of these levees is unknown, and many are more than 50 years old and were originally built to protect crops from flooding. With an increase in development behind these levees, the risk to public health and safety from failure has increased. Rough estimates put the cost of repairing and rehabilitating the nation's levees at more than \$100 billion.

A detailed ASCE report, which accompanies the grades released today, will be issued on March 25, 2009.