


The Systematic UNDERFUNDING

of Road Maintenance

If we want to pump money back into the economy, is building a new road really the answer?

BY DUANE HOOVER



As countries around the world announce significant public works programs to create jobs and pump billions of dollars back into the economy, the developed world appears set to embark on a strategy of spending its way out of recession. But just how well will this money be spent?

For decades, the systemic underfunding of road maintenance has left roads across North America, Europe and Australia in an extremely poor and often unsafe state, and the resultant congestion creates a significant economic cost in terms of lost productivity. Adding new road infrastructure without addressing maintenance problems will simply add to this funding gap – estimated at over \$1 trillion in the U.S. alone.

Spending Commitment

Governments across the world are united in a strategy of spending to save the global economy from a deep depression. From the U.S. to Australia and Europe, the G20 countries are embarking on massive programs of public spending in a bid to create jobs and support industry.

A key element of the spending program is a significant investment in road infrastructure. The British government has allocated one billion pounds to a new road construction project over the next few years, while the Australian government has allocated four billion Australian dollars (AUD). Over the next five years, the U.S. has allotted \$375 billion for roadways, along with a new job creation plan that includes \$10 billion for public infrastructure.

Yet, while these are undoubtedly impressive sums, questions still remain about how governments plan to spend this money. Road infrastructure across the developed world has endured systematic underfunding for decades. In fact, the gap between required maintenance and the actual amount budgeted for it has increased in recent years, yielding an unrealized search for greater efficiency.

The result has been a quantifiable deterioration in the quality of the road network and a maintenance policy that works on a “worst-first” basis, with no strategic planning whatsoever. The consequences of this is unplanned and extended road closures and disruption that undermines the economy and enrages the public.

The impact of this sustained lack of commitment to maintaining the road network is staggering. In the U.S., the National Surface Transportation and Revenue Study Commission found in 2007 that an investment of \$225 billion each year for 50 years would be required to upgrade and maintain the national network of roads and bridges. The American Society of Civil Engineers stated that the U.S. needs \$1.6 trillion over the next five years to bring the nation’s infrastructure up to a satisfactory condition.

Viable Economy

As governments now begin to assess how best to spend these public funds to boost the economy, it is important to understand that simply throwing more money at new construction projects is not a viable option. Building new roads requires significant public consultation and debate, and such projects are typically subject to rejection and delay. Even the current strategy of bringing forward existing projects on the table will still require a degree of consultation. Once the consultation and planning processes have been completed, it will take at least two years for new project investments to reach the market and create new jobs. Therefore, if governments want to put money back into the economy today, building a new road is not the answer.

Building new infrastructure simply adds to the already overstretched maintenance burden, creating even greater congestion problems in the future. The cost of this congestion to the economy is significant. In 2006, the government-funded Eddington report on the future of Britain’s transport infrastructure estimated that congestion may cost England’s economy 22 billion pounds a year in lost time by 2025.

The Texas Transportation Institute estimates that in the year 2000, the 75 largest metropolitan areas in the U.S. experienced 3.6 billion vehicle-hours of delay, resulting in 5.7 billion gallons (21.6 billion litres) in wasted fuel and \$67.5 billion in lost productivity, or about 0.7% of the nation's gross domestic product. It also estimates that the annual cost of congestion for each driver is approximately \$1,000 in very large cities and \$200 in small cities.

Traffic congestion is increasing in major cities, and delays are becoming more frequent in smaller cities and rural areas. In 2005, the three U.S. areas with the highest levels of traffic congestion were Los Angeles, New York and Chicago. The congestion cost for Los Angeles alone was estimated at U.S. \$9.3 billion.

The situation is just as bad in Australia, where a Public Works Commission review in 2006 estimated the potential aggregate backlog for all Australian local councils (excluding State and Territory Government) across the country to be approximately AUD 14.5 billion. In essence, this means they have under spent by AUD 1.1 billion annually and created a funding gap. To clear the backlog and correct the under-spending would require AUD 2.16 billion per year for the next 10 years.

If governments want to achieve an immediate boost to the economy, the way forward has to be through structured and well-planned road maintenance programs. Not only will this investment create jobs, but by improving the standard of the road network, the strategy will also improve business productivity and profitability, creating a secondary economic benefit.

Prioritizing Investment

With consumers reducing their petrol consumption in response to the economic downturn, the road tax contribution to maintenance is projected to fall further. It is therefore essential that governments address the massive shortfall in infrastructure maintenance.

However, there is a major stumbling block to this strategy. Very few of the public sector bodies tasked with road maintenance have the detailed asset information required to either prioritize work or build a strong case for a strategic maintenance program.

Every government has a growing requirement for due diligence around public sector investment. And, despite the underlying anxiety associated with the current investment pledge, departments will still need to justify expenditure demands. Highway maintenance managers need the detailed insight into the state of every asset and a complete picture of the performance of the road network to enable investment prioritization.

As we have witnessed, many are struggling to allocate new funds correctly, whether to new tarmac, bridge renewal or the creation of a new roundabout to reduce congestion, for

example. Once those investment decisions have been made, there is virtually no information on the improvement in performance to justify each decision.

Yet with detailed, accurate and complete road asset information, not only can highway maintenance be more strategically planned, but organizations can also move toward three to five-year planning cycles. The U.S. has demonstrated that the ability to work with contractors on a long-term plan can deliver unprecedented economies of scale that reduce the overall cost of work by an estimated 20 percent. This releases more funds for undertaking projects that will improve congestion and deliver more benefits to the economy.

Valuable Investment

There is no doubt that, by addressing congestion problems, governments across the developed world could deliver significant benefits to hard-pressed businesses. Cherry-picking the most attractive, headline grabbing new construction projects will not deliver any economic value – it is simply political expedience.

If organizations tasked with road maintenance are to access government funds, then they must be able to justify the investment. In other words, if this money was available today, what is the best way to distribute it? Can we really expect government to apportion money to any specific road maintenance project while feeling confident that their spending allocation is in the right area and that it will deliver real citizen value?

For those organizations that lack detailed, accurate asset information, it is difficult to make investment plans, let alone justify them. However, with the right information, it is feasible to justify spending requests, and prove the value of continued investment in delivery asset longevity. In addition, this information can establish a consistent level of service and create citizen value that governments rely on to justify their public spending strategy, which is to move the economy out of recession.

This investment in road infrastructure is long-awaited. Nevertheless, it is only by addressing the decades of underfunding in maintenance and embarking on planned and managed maintenance strategies that governments can both reinvigorate the economy with new jobs and deliver a much needed productivity boost by reducing the crippling levels of congestion in the Western world.



Duane Hoover

With over 25 years of transportation industry experience in North America, Duane currently serves as Industry Advisor for Exor Corporation. Previously with Oracle Corporation, he established their Transportation Division, which services state and local government customers in the U.S. and Canada.