

May 7, 2008

Green Building and Highway Requirements: National Perspective

Point 1: During the past 25 years, investment in highways and roads has not kept pace with demographic changes. During this period licensed drivers increased 37%, vehicle registrations increased 55%, vehicle miles travelled increased 51% and highway lane miles increased only 4.9%. Lack of investment in highways has led to increased traffic congestion, wasted fuel, higher CO2 emissions, wasted time and increased logistical costs to the detriment of economic growth. According to the Urban Mobility Report, during the past 25 years:

- Traffic delays facing the average commuter increased from 14 hours in 1982 to 38 hours per year in 2007.
- Wasted fuel accrued to congestion delays increased from half a billion gallons in 1982 to more than 3 billion gallons in 2007.
- Emissions attributed to congestion delays increased from 4.5 million metric tons of CO2 in 1982 to 27.2 million metric tons in 2007 – a six-fold increase
- Wasted fuel, time and higher transportation costs resulted in a cumulative cost on the economy of roughly \$80 billion annually in 2007, compared to less than \$15 billion in 1982.

Point 2: On-going demographic changes during the next 25 years will bring even more pressure on the highway infrastructure. Consider the following by 2033:

- The United States is expected to add 49 million licensed drivers, an increase of 24% over 2007 levels.
- Vehicle registrations is expected to increase by 58 million vehicles over 2007 levels.
- Total vehicle miles travelled is expected to increase 49% over 2007 levels.

Point 3: Lacking accelerated investment in highways, traffic congestion will worsen leading to increases in wasted fuel, CO2 emissions, wasted time and to overall cost to the nation's economy. If the trends of the past 25 years are sustained, PCA estimates the following by 2033:

- Peak traffic delays facing the average commuter is expected to increase from 38 hours per year to nearly 50 hours per year in 2033.
- Wasted fuel accrued to congestion delays is expected to increase from more than 3 billion gallons in 2007 to 6.5 billion gallons in 2033.
- Annual emissions attributed to congestion delays increased from 27.2 million metric tons of CO2 in 2007 to nearly 60 million metric tons by 2033.

- Wasted fuel, time and higher transportation costs will result in a cumulative cost on the economy of roughly \$150 billion annually.

Point 4: The ability to maintain or expand existing highway infrastructure under may be compromised by competing state expenditure responsibilities and diminished federal support.

- States are largely responsible for the expansion and maintenance of public highways.
- Currently, nearly 23% of total state spending is directed at Medicaid. As the population ages, Medicaid spending will increase. Medicaid spending is expected to account for 34% of total state spending by 2030 – potentially at the expense of highway and infrastructure spending.
- Revenues from federal gasoline taxes, which are fed into the Highway Trust Fund and used to support highway spending, remain at 18.3 cents per gallon and have not been increased since 1994. Since that time, construction costs have increased dramatically. \$1 dollar of gasoline tax revenue in 1994 that supported \$1 of highway spending now supports only 66 cents of highway spending – diminishing the effectiveness of federal support. The Congressional Budget Office expects the Highway Trust Fund will face bankruptcy in 2009. Federal gasoline taxes are not scheduled for review until 2011.
- Without increased emphasis on infrastructure spending traffic congestion will worsen leading to increases in wasted fuel, CO2 emissions and to overall cost to the nation's economy. ***A comprehensive approach to climate change legislation must take into consideration all factors that contribute to green house gas emissions.***

Point 5: The need to accelerate highway investment, coupled with new budgetary pressures suggest that states must re-assess how to best stretch scarce infrastructure investment dollars.

- Because concrete roads are more durable, they require fewer re-surfacings and lower maintenance costs during the lifetime of a road – saving states 20% or more in paving costs compared to asphalt roads.
 - Asphalt pavements, according to various state DOT records, require resurfacing at an average age of 9.9 years, and in some cases as short as 6 years. That implies 3 to 5 resurfacings during a 30 year time horizon.
 - Average age of a concrete pavement before any need for maintenance is 25 to 30 years or longer. That implies ONE resurfacing during a 30 year time horizon.
- Asphalt prices have increased 33% over the past two years – raising the initial paving costs for highways. High oil prices, the key factor behind the increase in asphalt, are likely to remain high.

Flash Report

Breaking Analysis of the Economy, Construction and Cement Industries

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State and Metropolitan Tables

