January 21, 2007

M E M O R A N D U M

TO: Members of the Subcommittee on Highways and Transit

FROM: Subcommittee on Highways and Transit Staff

RE: **SUMMARY OF SUBJECT MATTER:** Hearing on the Surface Transportation System: Challenges of the Future

PURPOSE OF HEARING

The Subcommittee on Highways and Transit is scheduled to meet on Wednesday, January 24, 2007 at 10:00 a.m., to receive testimony on the capacity of our nation's surface transportation system and the challenges and changes it will face 30 to 50 years into the future. The hearing will be the first of a series of hearings focusing on forward-looking surface transportation infrastructure issues. The Subcommittee will hear from representatives of the U.S. Department of Transportation, the National Surface Transportation Policy and Revenue Study Commission, and the research community on how our surface transportation system will need to adapt to support our changing and expanding economy.

BACKGROUND

Throughout our nation's history, the economy has undergone constant change but one factor has remained the same: economic growth, prosperity, and opportunity have followed increased investments in infrastructure. Today, the U.S. economy is the largest and most efficient economy in the world and our transportation network, comprised of our surface transportation system, aviation system, maritime transportation system, and inland waterway system, is the envy of the world.

Transportation infrastructure provides the backbone of our economy by moving people and goods. In 2002, according to U.S. Department of Transportation statistics, over 19 billion tons of freight, valued at $13 trillion, traveled over 4.4 trillion ton-miles over our transportation network. This means that approximately 53 million tons of goods, valued at about $36 billion, moved 12 billion ton-miles per day. In addition, transportation generates a significant share of our nation's

total economic output. In 2004, transportation-related goods and services contributed $1.232 trillion, or 10.5 percent, to the U.S. Gross Domestic Product (GDP) of $11.7 trillion.

Investment in surface transportation infrastructure has far-reaching effects, not only on our nation's economy and its global competitiveness but also on the quality of life of nearly all Americans. Private individuals traveled almost 3.8 trillion person-miles in 2001, or 40.25 person-miles each day. Transportation expenses represent 18 percent of the average household's total expenditures, the second largest spending category after housing. As our country's population and economy grows, these numbers will continue to increase.

To accommodate this freight and passenger traffic, our nation has constructed an extensive road system and public transportation network. There are 4 million miles of public roads in the United States. Only about 980,000 miles of these roads are part of the Federal-aid Highway System. Among the roads that are part of the federal-aid system, about 162,000 miles are in the National Highway System, which includes the Interstate System. The Interstate highways – totaling 46,873 miles – are the premier highways in our road system; they comprise about 1.2 percent of all public road mileage, yet carry 24.4 percent of the total traffic on all public roads. Transit systems around the U.S. provided 9.6 billion trips in 2004, an average of more than 26 million passenger trips per day. The infrastructure to support these riders is extensive. There are almost 11,000 miles of transit system fixed guideway track, 3,000 transit rail stations, and more than 171,000 transit vehicles (buses, rail cars, and vans) in service.

Despite this investment to date, and the importance of transportation both to the economy and the quality of life in our communities, the expansion of transportation infrastructure has not kept pace with needs. For example, highway infrastructure, as defined by the number of available highway miles, increased only 1.97 percent between 1980 and 2000. Yet between 1980 and 2003, travel in passenger cars, defined by the number of vehicle miles traveled, grew by 50 percent. Over this same timeframe, truck miles traveled increased 95 percent, while highway travel in other two-axle vehicles including light trucks and SUVs grew 238 percent.

These unmet infrastructure needs have resulted in, among other things, an alarming increase in congestion. In February 2004, the number of severe highway bottlenecks had increased by 40 percent in just five years. According to a Texas Transportation Institute study, the severity of congestion has increased and delays affect more people and freight than ever before. In 2003, extreme or severe congestion occurred during 40 percent of peak travel periods, compared to 12 percent just two decades earlier. As congestion increases, costs to travelers increase accordingly. In 2003, traffic congestion cost motorists in the nation's 85 largest urban areas $63.1 billion in terms of wasted time and fuel. This equals an average annual cost of about $794 per person.

The investment needed to repair, maintain, and improve existing infrastructure is significant. According to DOT estimates, $53.6 billion per year is needed to sustain highways, bridges, and transit systems at their current conditions. A far higher level of investment, $74.8 billion, would be required each year to improve these systems. As an example, updated data for 2004 show that there were 593,813 highway bridges in the United States, of which 158,319 were either structurally or functionally deficient.

These aggregate numbers provide an overview of infrastructure needs based on usage and economic trends that are identifiable today. Yet as our society continues to evolve and as our

economy transforms, the types and destinations of freight and the travel patterns of people will also change, as has been the case throughout our nation's history. At the turn of the 20th century, the United States emerged from an agrarian economy to become an industrial society. Through mechanization and two world wars, the U.S. stood at the pinnacle of world industrial power by mid-century. By the end of the century, the U.S. economy had transformed again to one that was information-based, and more service-oriented. Clearly, travel patterns and mobility needs were vastly different at the end of the 20th century than they were at the beginning.

Our surface transportation system also underwent fundamental change. Simple, narrow post or market roads that were mostly unpaved and commonly found throughout the country in 1900 were replaced by modern superhighways in 2000. Such a fundamental transformation was necessary to support a changing economy. In order to set transportation policies now that will be appropriate for the future, we must consider what the U.S. economy will look like in 2050, and evaluate what kind of surface transportation system we will need to support that economy and society.

To help arrive at an answer to these questions, Congress established the National Surface Transportation Policy and Revenue Study Commission in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the legislation enacted in 2005 to reauthorize surface transportation programs. Congress provided the Commission a very broad mandate to: (1) project the expected demographics and business uses that impact the surface transportation system 15, 30, and 50 years in the future; (2) determine the expected uses of our surface transportation system in the same timeframes to support a strong and competitive economy, including recommendations regarding design and operational standards, federal policies, and legislative changes; and (3) develop short-term and long-term alternatives to supplement or replace the federal fuel excise taxes as the principal revenue source to support the federal Highway Trust Fund.

Congress expects the Commission to describe and analyze a surface transportation system that can support our economy 50 years in the future. Such an analysis will enable lawmakers to establish long-term goals regarding the transformation of our surface transportation system, and to move beyond simply making changes at the margins to the existing system. It will also help Congress formulate short-, medium-, and long-term strategies necessary to achieve these goals, as well as mechanisms to finance such investments. By proceeding in this manner, we stand a better chance of developing a surface transportation system – conceivably quite different than the one in existence today – that will support the economy of the future and help keep that economy competitive in the global marketplace.

PREVIOUS SUBCOMMITTEE ACTION

The Subcommittee on Highways and Transit last year held hearings on related subjects, including highway capacity, freight mobility, and logistics, long-term lease of existing transportation facilities to private entities, and intermodal approaches to solving transportation problems.

WITNESS LIST

PANEL I **The Honorable Jeffrey N. Shane**
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*accompanied by Richard Capka, Administrator, Federal Highway Administration

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