STATEMENT OF
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SECRETARY OF TRANSPORTATION
Before the
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
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Chairman Boxer, Ranking Member Inhofe, and Members of the Committee, I am honored to be here today. Accompanying me is Frederick G. (Bud) Wright, Executive Director of the Federal Highway Administration.

America was stunned on the evening of August 1, 2007, when the Interstate 35 West (I-35W) bridge over the Mississippi River in Minneapolis, Minnesota, collapsed. Numerous vehicles were on the bridge at the time and there were 13 fatalities and 123 people injured. We extend our deepest sympathy to the loved ones of those who died and to the injured.

We do not yet know why the I-35W bridge failed. Something went terribly wrong. Bridges should not fail, and no one who is using them responsibly should be hurt because of an infrastructure failure. Our Department is working closely with the National Transportation Safety Board (NTSB) as it continues its investigation to determine the cause or causes of this failure. In the interim, we are taking every step to ensure that America's infrastructure is safe. I have issued two advisories to States in response to what we have learned so far, asking that States re-inspect their steel deck truss bridges and that they be mindful of the added weight construction projects may bring to bear on bridges.

Immediately upon learning of the collapse, at the direction of President Bush, I deployed a team, led by Federal Highway Administrator J. Richard Capka, to coordinate the Federal response on-site in Minneapolis. The morning of August 2, I was at the scene with them. The DOT team, including the continuous on-site support of the FHWA Minnesota Division Office and Deputy Federal Transit Administrator Sherry Little, is providing expertise in bridge engineering and construction, environmental assessments and planning, transit programs, and Federal contracting, to assist State and local officials in the recovery, debris removal, temporary traffic rerouting, and restoration of transportation services. This team is also working with the State to expedite the process for reconstructing the bridge. Administrator Capka continues to visit with officials in Minneapolis to ensure that progress is being made.

Federal support has included a quick release of $5 million in Emergency Relief Federal-aid Highway funding to the State of Minnesota to initiate recovery operations. Those funds were made available the day after the disaster to help restore the traffic flow, to clear the debris, to set up detours, and to begin the repair work.

President Bush signed legislation on August 6 authorizing $250 million for the replacement of the bridge. The legislation also made available $5 million to reimburse Minneapolis for increased transit operations to serve commuters until highway traffic service is restored on the bridge. Fifty million dollars in Emergency Relief funds were released on August 9 to ensure the State's recovery efforts can proceed without delay. As the State completes the assessment of the total damage and the ultimate cost to replace this bridge, we stand ready to ensure that appropriate funding is made available to replace it. Indeed, with Congress' assistance, we are committed to making funds available to the State as they are needed to ensure that the bridge is rebuilt as quickly as possible.

While not part of the emergency response funding, we have also provided an additional $13.2 million in immediately available transit funds in connection with our announcement of Minneapolis as an “Urban Partner” under our Congestion Initiative, a broad initiative for managing surface transportation in the Minneapolis area.

The I-35W bridge over the Mississippi River in Minneapolis originally opened in November 1967 and became one of the critical facilities in a vital commercial and commuting corridor. The bridge was an 8-lane, steel deck truss structure that rose 64 feet above the river before its collapse. The main span extended to 456 feet to avoid putting piers in the water, which would have impeded river navigation. As of the 2004 count, an estimated 141,000 vehicles traveled per day on the bridge.

FHWA is assisting the NTSB as they conduct a thorough investigation, which includes a structural analysis of the bridge. Within days of the collapse, development of a computer model based upon the original design drawings for the bridge began at FHWA's Turner Fairbank Highway Research Center in McLean, Virginia. This model can run simulations to determine the effect on the bridge of removing or weakening certain elements to recreate, virtually, the actual condition of the bridge just prior to and during its collapse.

By finding elements that, if weakened or removed, result in a bridge failure similar to the actual bridge failure, the investigators' work is considerably shortened. While examination of the physical members of the bridge being recovered from the site provide the best evidence of why the bridge collapsed, the analytical model allows the evaluation of multiple scenarios which can then be validated against the physical evidence. This work is expected to take several months and my forensic experts have been on site continuously since the day after the collapse providing their expertise and assistance. We need to fully understand what happened so we can take every possible step to ensure that such a tragedy does not happen again. Data collected at the scene, with the help of the Federal Bureau of Investigation's 3-D laser scanning device, are being used to assist in the investigation.

On August 2, the day after the collapse, I requested that the DOT Inspector General conduct a rigorous assessment of the Federal-aid bridge program and the National Bridge Inspection Standards (NBIS). The NBIS, in place since the early 1970s, generally

requires safety inspections at least every two years for all highway bridges in excess of 20 feet in total length on public roads. Safety is enhanced through hands-on inspections and rating of components, such as the deck, superstructure, and substructure, and the use of non-destructive evaluation methods, and other advanced technologies. The composition and condition information is collected in the national bridge inventory (NBI) database, maintained by FHWA.

The I-35W bridge has been inspected annually by the Minnesota Department of Transportation (MNDOT). The most recent inspection was begun by MNDOT on May 2, 2007. No imminent dangers were observed and MNDOT planned to continue inspecting the bridge in the fall following completion of construction work on the bridge.

Federal, State, and local transportation agencies consider the inspection of our nearly 600,000 bridges to be of vital importance and invest significant funds in bridge inspection activities each year. We strive to ensure that the quality of our bridge inspection program is maintained at the highest level and that our funds are utilized as effectively as possible. The Inspector General will be monitoring all of the investigations into the collapse and reviewing our inspection program to decide and advise us what short- and long-term actions we may need to take to improve the program. Although we will have to wait for the NTSB's report before we can conclude if the inspection program played any role in this collapse, we must have a top-to-bottom review to make sure that everything is being done to keep this kind of tragedy from occurring again.

In the aftermath of this tragedy, a necessary national conversation has begun concerning the state of the Nation’s bridges and highways and the financial model used to build, maintain and operate them. It is important to understand that, while we must do a better job of improving the Nation’s transportation systems, we do not have a broad transportation infrastructure “safety” crisis. We agree that the condition of our infrastructure requires on-going attention, but I want to emphasize that we will not allow the public safety to be put at risk. We would limit the use of a bridge or close a bridge rather than let the public safety be put at risk.

Since 1994, the percentage of the Nation’s bridges that are classified as “structurally deficient” has declined from 18.7% to 12.0%. The term "structurally deficient" is a technical engineering term used to classify bridges according to serviceability, safety, and essentiality for public use. The fact that a bridge is classified as "structurally deficient" does not mean that it is unsafe for use by the public. Since 1995 the percentage of travel taking place on roads that are considered “good” has increased from 39.8% to 44.2%. Overall, approximately 85% of travel takes place on pavement that is considered “acceptable.”

FHWA estimates that if we pursued a cost beneficial investment strategy, it would cost approximately $40 billion a year to maintain the physical condition of our Nation’s highways and bridges and approximately $60 billion a year to substantially improve the physical condition of current roads and bridges. In 2005, Federal, State, and local governments together made over $75 billion in capital investment to rehabilitate

highways and bridges in the U.S. and improve their operational performance. If we include operational, administrative, and debt service costs in addition to capital investments, the U.S. spent nearly $153 billion on highways and bridges in 2005.

These infrastructure quality numbers should and can be improved with more targeted investment strategies, but it is inaccurate to conclude that the Nation's transportation infrastructure is unsafe. We have quality control systems that provide surveillance over the design and construction of bridges. We have quality control systems that oversee the operations and use of our bridges. And we have quality control over inspections of bridges to keep track of the attention that a bridge will require to stay in safe operation. These systems have been developed over the course of many decades and are the products of the best professional judgment of many experts. We will ensure that any findings and lessons that come out of the investigation into the I-35W bridge collapse are quickly learned and appropriate corrective actions are institutionalized to prevent any future occurrence.

A more accurate description of our current and broader problem is that we have an increasingly flawed investment model and a system performance crisis. Many are calling for a renewed national focus on our Nation's highway infrastructure. And while I agree that our infrastructure models need to be reexamined, it is imperative that we actually focus on the right problem.

When faced with an underperforming division, the response of any credible business organization is to assess the cause of underperformance and to implement policies and practices intended to reverse performance declines. In my assessment, the underperformance in the highway sector is fundamental, not incremental. In other words, increases in Federal taxes and spending would likely do little, if anything, without a more basic change in how we analyze competing spending options and manage existing systems more efficiently.

Because tax revenues are deposited into a centralized Federal trust fund and re-allocated on the basis of political compromise, major decisions on how to prioritize investments--and thus spend money--are made without consideration of underlying economic or safety merits. The degree to which one capital investment generates more returns than a competing investment is the most basic question asked in virtually every other capital intensive sector of the economy. Yet, when it comes to some of our largest and most critical investments we make as a Nation – highways and bridges – there is virtually no analysis of this question. There is no clearer evidence of this failure to prioritize spending than the disturbing evolution of the Federal highway program. This program has seen politically-designated projects grow from a handful in the surface transportation bill enacted in the early 1980s to more than 6,000 enacted in SAFETEA-LU. The cost of these earmarks totaled $23 billion – a truly staggering figure.

The real cost of these earmarks is much higher. Looking at a sample of various recent earmarks, we found that the Federal earmark amounts themselves comprised on average only 10% of the total project cost. Because of this, State departments of transportation

will typically either delay the earmarked project indefinitely or re-allocate resources from higher priorities to fill the funding gap. In addition, earmarks present extra administrative burdens for States that must dedicate scarce personnel resources to managing lower priority projects that are subject to earmarking. In short, earmarks ripple through the entire Federal-aid program structure.

In addition to earmarks, there are more than 40 special purpose programs that provide funding for projects that may or may not be a State or local priority. The statewide and metropolitan planning processes are comprehensive and inclusive, and a proliferation of categorical programs further reduces State and local ability to best use available funds to meet the priorities identified through those processes. As a former State DOT director, I have had first-hand experience with the difficulties created when Washington mandates override State priorities.

While many of these investments may have worthy purposes, virtually no comparative economic analysis is conducted to support these spending decisions. No business could survive for any meaningful period of time utilizing a similar investment strategy. Not surprisingly, new economic literature reveals that the returns on our highway investments have plummeted into the low single digits in recent years.

The Department is working with States to encourage them to regularly use benefit cost analysis (BCA) when making project selection decisions. Currently, approximately 20 States make some use of BCA, while 6 States use the technique regularly. The Government Accountability Office (GAO) recently conducted two studies to identify the key processes for surface transportation infrastructure planning and decisionmaking, with a particular emphasis on the role of economic analysis methods and the factors that affect the use of such methods.

These studies are *Highway and Transit Investments: Options for Improving Information on Projects' Benefits and Costs and Increasing Accountability for Results* (GAO-05-172); and *Surface Transportation: Many Factors Affect Investment Decisions* (GAO-04-744). The former report noted that "the increased use of economic analytical tools, such as benefit-cost analysis, could improve the information available to decision makers and, ultimately lead to better-informed transportation investment decision making" (GAO-05-172, p. 6).

Among other reasons, GAO cited "political concerns" for why BCA is not more widely utilized in U.S. public sector surface transportation decisionmaking. GAO observed that a project may be important for a particular interest group or constituency even though it is not efficient from an economic standpoint. At a minimum, BCA would provide additional transparency to decisions that are less cost-beneficial. Ideally, BCA would actually begin to prevent inefficient decisions from being made in the first place.

GAO also noted that BCA results are rarely reviewed in light of actual project outcomes. In other words, not only is BCA underutilized in the project planning process, but it is also rarely utilized to assess the efficacy of previous investments. This is in stark contrast

to typical capital investment models employed in the private sector. It is important that Congress and the Department work together to establish far more productive means to ensure that scarce resources are flowing to projects that benefit the public the most. BCA is likely to be one of our most effective tools to advance that objective.

Moreover, since Federal transportation funding levels are not linked to specific performance-related goals and outcomes, the public has rightfully lost confidence in the ability of traditional approaches to deliver. Performance-based management can help establish and maintain accountability. As former Washington State DOT Secretary Doug MacDonald noted, "transportation agencies need to demonstrate to taxpayers that they get a dollar's worth of value for a dollar's worth of tax." The use of performance measures, by helping to identify weaknesses as well as strengths, can improve the transportation project selection process and the delivery of transportation services.

In addition to an insufficient performance and cost-benefit focus, the current gas tax-dependent model does virtually nothing to directly address the growing costs of congestion and system unreliability. Indirect taxes on gasoline, diesel fuel, motor vehicles, tires, property and consumer products – the dominant means of raising revenues for transportation -- are levied regardless of when and where a driver uses a highway. This leads to a misperception that highways are "free," which in turns encourages overuse and gridlock at precisely the times we need highways the most. Consistent with the views of almost every expert that has looked at the issue, GAO recently released a report arguing that gas taxes are fundamentally incapable of balancing supply and demand for roads during heavily congested periods.

The data simply do not lie in this case. Relying extensively on gas and motor vehicle taxes, virtually every metropolitan area in the U.S. has witnessed an explosion in traffic delays over the last 25 years. Meanwhile, in recent years, the increase in surface transportation funding has significantly outpaced the overall growth of non-defense, non-homeland security Federal discretionary spending. And, since 1991, capital outlays for surface transportation at all levels of government have nearly doubled. Economists have long understood the connection between payment mechanisms and system performance, but technology and administrative complexities limited the ability of policymakers to explore alternatives. Today, those barriers no longer exist.

This is one of the main reasons that our Department has been strongly supporting States that wish to experiment with electronic tolling and congestion pricing. Nationwide, the majority of projects in excess of $500 million currently in development are projected to be financed at least in part with electronic tolls. In the middle of August, we announced Federal grants in excess of $800 million to some of the country's largest cities to fully explore the concept of electronic tolling combined with expanded commuter transit options and deployment of new operational technologies. Nationwide, the trends are encouraging.

We believe that to the extent feasible, users should finance the costs of building, maintaining and operating our country's highways and bridges. It is increasingly clear

that directly charging for road use (similar to the way we charge for electricity, water, and telecommunications services) holds enormous promise to both generate large amounts of revenues for re-investment and to cut congestion. Equally important, however, prices send better signals to State DOTs, planners, and system users as to where capacity expansion is most critical. Prices are not simply about demand management, they are about adding the right supply.

Congestion pricing can also provide substantial environmental and energy benefits, conclusively demonstrated by recent evaluations of cordon-pricing programs in Stockholm and London.

* In London, motor vehicle-related emissions of urban air pollutants declined by 13-15 percent in the year following the introduction of congestion pricing, while fuel consumption and emissions of the greenhouse gas carbon dioxide declined by 16.4 percent.

* In Stockholm, emissions of vehicle-related urban air pollutants declined by 10-14 percent, while fuel consumption and greenhouse gas emissions declined almost 3 percent.

British authorities estimate that 46-87 percent of the reduction in fuel consumption and emissions are attributable to vehicles traveling at higher, steadier, and hence more efficient speeds. Urban air pollutant reductions are particularly valuable, because they reduce emissions inside large urban areas where large populations are exposed to the highest concentrations of pollutants.

More than 40 percent of the vehicle miles traveled in the United States are driven in the 85 largest urban areas, and likely more than half of gasoline and diesel fuel consumption. Potential reductions in fuel consumption and emissions from congestion pricing programs in major urban areas could contribute to achieving our energy, environmental, and public health goals.

While the traveling public's saving of time is the single largest benefit, gasoline savings could also help to offset the cost of tolls, and the potential environmental benefits could yield private and public health dividends.

The current financial model is also contradictory to other critical national policy objectives. As a country, we are rightfully exploring every conceivable mechanism to increase energy independence, promote fuel economy in automobiles, stimulate alternative fuel development, and also to reduce emissions. President Bush has urged Congress to pass laws that will substantially expand our alternative energy capabilities and increase Corporate Average Fuel Economy requirements for automobiles and light trucks. The Federal Government should be strongly encouraging States to explore alternatives to petroleum-based taxes, not expanding the country’s reliance upon such taxes.

The current highway and bridge financial model also fails to provide strong incentives for technology development and deployment, particularly when contrasted to other sectors of the economy. It is imperative that we find more effective means to ensure that the rewards of a given advancement – for example, in extended life pavements or more sophisticated traveler information systems – can accrue in part to those firms or individuals that come forward with creative ideas. It is no coincidence that we are seeing a technology boom in markets that have pricing structures that reward innovation. Pricing infrastructure usage more closely to its true costs will not only reduce congestion and more appropriately target resources, it will also provide new incentives for innovation.

Finally, from a Federal investment policy perspective, it is also important to understand that States may simply react to higher Federal spending by reducing their own spending. A 2004 GAO report entitled **Federal-Aid Highways: Trends, Effect on State Spending, and Options for Future Program Design** looked at this exact issue and found that "significant substitution has occurred and that the rate of grant substitution increased significantly over the past two decades, rising from 18 percent in the early 1980s to about 60 percent during the 1990s—the periods that ISTEA and TEA-21 were in effect." The report also concluded that "the structure of the federal grant system as a whole may encourage substitution."

The I-35W bridge collapse was both a tragedy and a wake-up call to the country. We have a duty to ensure a safe transportation system for all who use it. Moreover, our country's economic future is tied in large part to the safety and reliability of our transportation infrastructure. Before reaching the conclusion that additional Federal spending and taxes are the right approaches, we should critically examine how we establish spending priorities today. We need a data-driven, performance based approach to building and maintaining our Nation's infrastructure assets – a process where we are making decisions based on safety first, economics second, and politics not at all. And we need an underlying framework that is responsive to today's and tomorrow's challenges, not those of the 1950s.

I look forward to working with you and would be pleased to answer any questions you may have.