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Subcommittee on Investigation and Oversight

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Infrastructure Investments

Mr. Chairman, I am pleased to testify at today's hearing on the transportation and environmental infrastructure needs of the Nation. I am also pleased to appear with the Federal Transit Administrator, Gordon Linton. Both of us, as well as Secretary Peña, are committed to a truly intermodal effort as we carry out the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). It is very timely for me because I have just completed a 3,500 mile, border to border, 14-day, 14-State, fact-finding trip to assess our surface transportation infrastructure needs, to evaluate the implementation of ISTEA, and to get a fuller understanding of the proposed National Highway System (NHS) which we recently submitted to the Congress for approval and which you have considered in recent hearings. Another purpose of this border to border mission from Buffalo, New York, to Laredo, Texas, was to focus on what Secretary Peña and I consider to be the logical follow-up of the NHS, an intermodal National Transportation System.

An event which occurred during my trip and which underscores the importance of this hearing today was the opening of the Santa Monica Freeway in Los Angeles only 84 days after the quake. The quake and last year's Midwest floods have demonstrated the effects of damage to important parts of our transportation infrastructure and brought home to us the overall importance of transportation infrastructure to our national economy, and our overall quality of life.

I believe the public is aware, if not alarmed, at the current condition of our infrastructure. My road tour confirmed this belief. These conditions were also very vividly outlined in the Washington Post supplement of March 22, titled "Infrastructure: Preparing for the 21st Century," which I commend to all for reading. This highlighted the concerns of many, including the Vice President, Secretary Peña, the Chairman of this Committee, the Chairman and Ranking Minority Member of the Senate Environment and Public Works Committee, and other transportation leaders, economists, and transportation experts. This Administration is committed to wise investment in our infrastructure facilities and the continued improvement in the quality and performance of our infrastructure programs. The President's proposal in his FY 1995 budget to fully fund ISTEA underlines this belief. As President Clinton has said, "A well-functioning infrastructure is vital to sustained economic growth, to the quality of life in our communities, and to the protection of our environment and natural resources."

Infrastructure Needs

Our most recent assessment of highway, bridge, and transit conditions and performance is contained in the 1993 version of the congressionally required biennial report Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance. The estimates contained therein were developed from 1991 data. The report shows that the cost to eliminate the existing backlog of highway pavement deficiencies and feasible capacity deficiencies is approximately \$212 billion. The current cost to eliminate the existing backlog of bridge deficiencies is about \$78 billion, for a total backlog of approximately \$290 billion. The backlog in all categories is gradually increasing since, collectively, the Federal, State, and local governments are not investing at a rate to maintain overall conditions and performance. Fully funding the core ISTEA programs will help bridge that gap.

There are substantial costs to the economy as a result of congestion. In the Nation's 50 most populous urban areas, the cost of highway reoccurring (peak hour) congestion due to poor surfaces and inadequate capacity, which includes the cost of delay and wasted fuel, is more than \$39 billion per year. This figure increases to almost \$100 billion dollars annually if you include the cost of incidents (accidents, weather, etc.) and the delay cost associated with maintenance and construction activities.

Long-term financing is the single most critical issue facing highway, bridge, and transit infrastructure. The number of vehicle trips grew by 25 percent between 1983 and 1990. Population growth explains only about 4 percent of this increase. Trips per capita account for the rest. Vehicle miles of travel grew more than 40 percent between 1983 and 1990. In addition to the increase in the number of trips, there was also a dramatic increase in vehicle trip length during this same period. Future travel growth, while projected to increase at a rate generally lower than that experienced over the past two decades, will continue to place demands on the system for additional capacity, including operating improvements, new construction, and new transit service.

Highway investment has not kept pace with increased travel. Public capital stock reflecting highway investment has remained in the \$600-700 billion range since the mid-1970's. Similarly, public investment in highways in constant dollars per vehicle miles of travel (VMT) has **dropped** from about seven cents per VMT to 3.4 cents per VMT. Capital outlays for highways in 1991 are about the same as they were in 1965 in constant dollars. Thus, in spite of great increases in vehicle miles travelled, population, and other factors that increase the need for highway investment, long-term financing has been inadequate, resulting in highway disinvestment.

Funding Levels

In 1991, total highway investment for all levels of government was \$78 billion. The capital investment by all levels of government for all highways was over \$32 billion. Just maintaining current conditions would require an annual capital investment for the next 20

years of about \$52 billion or \$46 billion for 1992. This \$46 billion figure is about \$14 billion above the actual 1991 investment level.

Actually, improving current conditions and performance and eliminating the \$290 billion backlog would require an average annual investment of about \$67 billion or \$60 billion in 1992. This \$60 billion figure is about \$28 billion above the actual 1991 investment level. Poor highways add as much as 40 percent to the per mile cost of operating vehicles, which translates directly into lost capital productivity. Increased investment to improve the performance of our Nation's highway system would reduce the road user costs associated with congestion, poor pavements and bridges, and inadequate connectivity to ports, airports, ports of entry and other intermodal transfer facilities.

The emphasis has been on preserving the transportation system. Much progress has been made; much more needs to be done. We are recognizing, along with other Nations, that the economy performs better with significant investment in infrastructure.

Full ISTEA funding alone will not satisfy all our highway investment requirements. A reasonable estimate is that Federal, State, and local financing will be about \$12 billion lower than the investment required to maintain current levels of conditions and performance on Federal-aid highways. By not meeting this investment requirement we add to the backlog of needed improvements. This backlog causes, both now and in the future, increases in delay, operating, and safety costs.

Facilitating Improvements

The Committee asked that we delineate how the Federal government can facilitate highway and bridge infrastructure improvements, for example, by legislation, by setting standards, by innovative financing and tax policies, and by coordinating regional solutions.

To maintain our economic growth, improve the quality of life in our communities, and properly protect our environment while providing appropriate access to important natural resources, our Nation requires an adequate highway infrastructure. To develop and maintain an adequate network of highways and bridges, the Nation relies heavily on investments and policies of the Federal government.

The Federal government's role is both complex and important. By far, the single most important action that the Federal government can take to improve our Nation's highways and bridges is to successfully implement the ISTEA. This legislation establishes the Federal framework for the programs, policies, and financing for Fiscal Years 1992 - 1997. The ISTEA legislation gives the Federal government a blueprint of what it should be doing to facilitate highway and bridge improvements, and as we approach the "half way" point of ISTEA's six-year life, I think that we are making great progress.

There are a number of specific actions the Federal government should take to make sure that the Nation has the highway and bridge infrastructure it needs now and will need in the 21st Century. Let me provide some specific examples:

- The NHS - Approval of the proposed NHS is absolutely essential to "tie America together" and support our economy and way of life. Designation legislation is our highest priority.
- Full Funding - Full funding for ISTEA's core highway programs is needed to ensure adequate highway and bridge infrastructure. The Administration strongly supports full funding for FY 1995.
- Innovative Financing - On March 14, 1994, responding to the President's Executive Order on Infrastructure Investment, and Secretary Peña's commitment to it, I established an Innovative Financing Task Force, chaired by Deputy Administrator Jane Garvey. This Innovative Financing Test and Evaluation Project, notice of which we published in the April 8, Federal Register, will identify actions to encourage increased investment in transportation. The purpose of the Federal Highway Administration's (FHWA) Innovative Financing Project is to make use of ISTEA flexibility and encourage States, local governments, private investors, and the financial community to increase investment in transportation. By creating incentives, removing barriers, and employing under-utilized ISTEA provisions, we can leverage needed investment into our Nation's highways and bridges. We expect this initiative to result in projects, working models, that will provide examples of creative financing solutions. In addition, we seek to develop a base of knowledge that will help in the reauthorization process.

The FHWA is asking the States for examples of ISTEA eligible projects which show creative financing solutions. Once identified as a priority project for the Innovative Financing Project, the project will be advanced in a normal but expedited manner. FHWA staff will work with State partners to refine financial plans to maximize the probability of successful projects. Under the Innovative Financing Project, FHWA will make full use of its ISTEA and other regulatory and statutory flexibility to advance ISTEA-eligible projects which leverage funds.

We will examine our guidance on reconstruction and conversion of free to toll facilities, on guidance concerning ISTEA section 1044 soft-match provisions, and mechanisms that permit a State to take advantage of private cash donations and leverage private funds.

We want to explore the generation of highway-related income by allowing States to increase joint use of airspace through the acquisition of additional adjacent lands to expand opportunities for income and economic development.

Also, we want to examine use of expanded bond financing, promotion of public/private partnerships using developer funds, and revenue streams whereby State and federal funds could be used to pay an annual "rent" to a private contractor who builds and maintains a facility.

We expect to receive our initial submissions of financing proposals from the States by April 29. We would be pleased, after we receive these submissions, to have FHWA Deputy Administrator Jane Garvey and Assistant Secretary Louise Stoll, co-chairs of the Department's innovative financing task force, appear before this Subcommittee to share the results of this project.

I would like to emphasize that while this particular effort is new, our commitment to improve financing for our highways has been on-going and is already producing results. In the past several months, two noteworthy project agreements have been made -- one in Southern California and the other in Houston, Texas, which we signed last Sunday while I was in Texas on the fact-finding trip. The California project, SR-91, involves a private firm building and operating a toll road on State-owned land. The Texas agreement, which calls for a bridge transfer and involves the Texas Turnpike Authority, Harris County, Texas, and the FHWA, commits federal funds to build 28 miles of toll roads. These roads will feed into the Shipping Channel Bridge. While our successes to date have involved mostly toll projects, we are committed to going beyond that in the future to achieve more investment in the infrastructure.

- **Tax Evasion Effort** - The FHWA has initiated a major effort jointly with the Internal Revenue Service and the States to reduce or eliminate motor fuel tax evasion, which is estimated to cost the Highway Trust Fund billions of dollars in lost revenue. The shortfall means that the travelling public is being cheated out of resources needed to build and maintain the Nation's transportation system. We are confident that our efforts are bearing fruit and, in combination with the recent diesel fuel dyeing, and changes in the point of diesel tax collection, we will restore much-needed trust fund revenue.

Finally, Secretary Peña announced a Strategic Plan in January 1994. Its goals provide a practical guide for the Federal role in highway and other transportation. Specifically, the goals of "tying America together" and promoting strategic investment directly relate to what the Federal government can do to provide adequate highway infrastructure.

State, Local, Private Role

The Committee asked that we outline the roles of State, local, and private resources in dealing with the revitalization of our Nation's highway and bridge infrastructure.

The Nation must rely on the State and local governments and a vigorous private sector to revitalize our highways and bridges. Events such as the California earthquake and Midwest

floods underline the fact that we must have the efforts, resources, and co-operation of every level of government to meet transportation challenges. The opening of the Santa Monica Freeway ahead of schedule shows what is possible when Federal, State, and local officials work with the private sector.

While less dramatic, the long-term revitalization of our Nation's infrastructure will require a similar partnering commitment from all levels of government and the private sector. Currently, when you compare the years 1991 and 1992, we are spending about \$14 billion less than what is needed to maintain current highway and bridge conditions; and about \$28 billion less than needed to improve current conditions. Clearly, State and local governments must work with the Federal government to address a problem of this magnitude.

To address this critical problem, States and local governments have taken important steps to revitalize the Nation's highways and bridges. Currently, more than 50 percent of the funds for all capital highway and bridge improvements are furnished by State and local governments. State and local spending for highway capital improvements increased at 6.5 percent more than inflation during the 1980's in spite of adverse economic conditions and competing budget priorities. States have shown their willingness to increase their own State motor-fuel taxes to address their highway needs.

The President's recent Executive Order on Infrastructure Investment (E.O. 12893) provides an overall structure for the Federal government to work more effectively with States and local governments on Federally financed projects.

We have required economic analysis on Federally financed highway projects in our Statewide planning, metropolitan planning and management systems regulations. We are currently preparing an interim life cycle cost policy statement for Federally financed projects. We are using the biennial "Condition and Performance Report" for budget analysis of different investment levels. Also, we are beginning implementation of a Highway Economic Requirements Systems (HERS) for simulating the most cost effective mix of improvements on the Nation's highways for different investment levels.

In the area of efficient infrastructure management, again the Statewide planning, metropolitan planning, and management systems requirements focus on preserving and effectively managing existing facilities. In the air quality non-attainments areas, we are emphasizing traffic demand management strategies. Additionally, we are supporting congestion pricing and innovative contracting initiatives. As mentioned earlier, our Innovative Financing Project should enable States, local governments, private investors, and the financial community to employ creative and innovative financing solutions to leverage new investments in infrastructure.

Perverse Incentives

The Committee has asked what steps we have taken to ensure that our capital assistance programs do not create perverse incentives, discouraging the use of State and local funds for maintenance activities, in anticipation of Federal funds for rehabilitation or replacement.

One of the most important elements of the ISTEA that will ensure sound investments in the Nation's infrastructure in the future is the establishment of management systems for pavement, bridge, highway safety, public transportation facilities and equipment, traffic congestion, and intermodal facilities and systems. These systems will yield strategies directed toward addressing needs and will also evaluate the effectiveness of the implemented strategies. We believe these management systems set in place a strong foundation for decisions that are not short sighted but that consider long term implications and will ensure appropriate expenditure of public funds.

The ISTEA simplified the matching requirements for Federal-aid funds, thereby minimizing any potential for "perverse incentives" in major investment strategies involving specific program or improvement types. The Interstate Maintenance Program requires that the Interstate System be maintained at appropriate levels before funds apportioned through this program can be made available for other construction activities. Certain types of preventive maintenance are eligible under this provision.

Under the Bridge Program authorized by the ISTEA, certain minimum funding is available for bridge painting, seismic retrofitting and other preventive maintenance activities. Although Federal-aid funds have traditionally not been available for ordinary maintenance, emerging research suggests that certain types of preventive maintenance can prolong the useful life of both highway and bridge facilities. As results from this continuing research become available, further consideration will be given to expanding the eligibility definitions for Federal-aid highway funds to take advantage of the long term savings that might be associated with preventive maintenance.

European Highway Building Approach

The Committee asked for our views on the pros and cons of the European approach to building highway facilities, using greater investment on the front end to assure better performance and longer useful life.

The FHWA has been actively engaged in reviewing European pavement design and evaluating applications in this country. What we found in Europe was a greater financial commitment to providing service for a longer time period. That commitment is reflected in stronger pavement designs, comprehensive maintenance, and early rehabilitation efforts applied before distress shows up in the form of potholes, rutting, etc. There are States that follow the same good practices that Europe does, and it shows in the conditions of their pavements; what we need is a consensus on the condition that is to be maintained, and the

commitment to do it. So we have learned from the European systems, and will continue to study them. In the area of safety alone, however, fatal accident statistics show our system to be measurably safer.

We will issue a policy by this summer, covering the use of life-cycle cost analysis in all aspects of project development and review. This policy will stipulate that, in addition to considerations of initial construction costs, long term maintenance costs as well as costs of repetitive maintenance and lane closings on highway users must be considered in project design. The long term impact of more stringent pavement design, modelled on European 40 and 50-year design, will be included as options that should be considered in project development.

FHWA estimates of future capital requirements to meet specified system performance standards will also address European pavement design options through the Highway Economic Requirements System (HERS). This is a marginal benefit/cost simulation model that will be used to evaluate alternate pavement designs as part of a comprehensive set of potential capital improvements to redress highway deficiencies. The result of these analyses will be presented to the Congress in future biennial reports on highways conditions, performance, and future investment requirements.

Infrastructure in Urban Areas

The Committee asked about the importance of improved highway and bridge infrastructure to the Nation's urban centers. The efficient and effective movement of people and goods, not just between urban areas but also within them, is essential. In many urban areas, this mobility is threatened by growing congestion. The 1993 Condition and Performance report found that the congestion on urban Interstates, which have become the lifelines for many cities, continues to increase, with peak-hour travel occurring under congested conditions exceeding 70 percent in 1991 compared to 55 percent in 1983.

The declining performance of roads and bridges directly affects the economy of the urban areas. Urban congestion, of course, adds costs to personal and freight transportation, and is often cited as the reason for locating in suburban, exurban or rural areas. With the advent of just-in-time production and distribution systems, the survival of American firms in this era depends on the reliability of truck shipments, and access and reliability of shipments can often be the deciding factor when a firm locates a facility. These shifts often occur at the expense of urban centers. Crumbling infrastructure in urban centers also dampens tourism which has become a major revenue generating activity of urban centers. The old downtown areas with their diversity, culture, and history attract visitors that depend on well-functioning roads and bridges, as well as other transportation.

Another emerging problem of the urban centers that can, in part, be eased by better functioning highway systems, is the drop in employment opportunities in the city contrasted with the growth in jobs in the suburbs. The movement of city center residents to these jobs

is critical. Since much of the job growth occurs beyond the reach of fixed transit facilities, the workers rely on highways, that are used by buses and vans as well as cars, for access. Better functioning highway systems will translate into more job opportunities for center city residents.

We believe the life of urban centers depends in great part on well functioning transportation systems. Not only highways but also transit, railroads, ports, and intermodal transportation become increasingly important. Transfers of highway funds to transit and vice versa, permitted by the ISTEA, give the States and local governments the opportunity to choose the best transportation solution; regardless of mode, for their transportation needs. Since the enactment of the ISTEA, about \$1 billion of Federal-aid highway funds have been transferred to transit projects. In addition to the funding flexibility options, the management systems and planning provisions instituted by the ISTEA lead the way to better transportation decisions in urban areas. We believe the result will be transportation improvements that will invigorate cities as well as other areas.

Executive Order 12875. Enhancing the Intergovernmental Partnership

Finally, I'd like to briefly highlight the efforts we have made in response to Executive Order 12875, "Enhancing the Intergovernmental Partnership," to reduce the imposition of unfunded Federal mandates and to minimize their effect on State and local infrastructure investment strategies. The FHWA has long supported the goal of the Executive Order to provide regular and meaningful consultation and collaboration with State, local, and tribal governments on Federal matters that affect their communities. We recognize that this partnership is crucial to the success of many of the innovative programs provided for in the ISTEA.

Through the Federal-aid highway program, the FHWA provides grants to States, ranging between 80 to 95 percent of project costs, for a wide range of surface transportation projects, from traditional highway construction projects to activities that enhance the environment and contribute to meeting air quality standards.

The FHWA has a long history of consultation and coordination with the States in the successful development of the Federal-aid highway program. In addition to the FHWA's collaboration with the States on all facets of the development of the Federal-aid highway program, States have retained primary project decisionmaking authority under the federally aided State program model that has been developed.

The ISTEA marks the beginning of a new era of even closer collaboration with State, local, and tribal governments. For example, the Statewide and metropolitan planning programs and the six management systems requirements of ISTEA recognize the central role of States and local governments in determining how Federal funds are spent on surface transportation projects in their communities. States, metropolitan planning organizations, and transit operators, in developing long-range transportation plans and transportation improvement

plans, maintain primary control over their own infrastructure investment decisions. Moreover, Federal funds are provided to cover the costs of implementing the planning and management systems requirements.

Essentially, the Federal-aid highway program is a Federal-State cooperative grant program, thus it carries no "mandates" per se. Admittedly, if a State wishes to receive Federal grant money, it must meet the conditions of the grant, but the Federal funds received by States offset the costs of such "mandates." As noted above, the Federal share of project costs far exceeds the State's share; typically, the Federal contribution will cover between 80 and 95 percent of the cost of Federal-aid highway projects.

I recognize that under the Federal-aid highway program, States must comply with certain minimum Federal environmental and labor requirements, such as the National Environmental Policy Act, the Clean Air Act, and the Davis-Bacon Act. There are definite and perhaps quantifiable costs associated with this compliance. However, the States, in addition to the Federal government, are certainly beneficiaries of participatory environmental decisionmaking, cleaner air, and the payment of prevailing wage rates. In my opinion, highway projects which are (1) developed through a consensus-building planning process, (2) designed to improve air quality, and (3) built to ensure the safe and rapid transport of people and goods answer the President's call to ensure the long-term prosperity of the Nation through strategic infrastructure investment.

Conclusion

In closing, I would like to emphasize that after having traveled over some 3500 miles of our Nation's highways and with the benefit of conversations with hundreds of knowledgeable local officials and interested fellow citizens, my conviction is that we must continue to invest in the vital infrastructure that we have in place and that we need to officially designate an NHS. For vast areas of the United States, urban and rural, efficient highway transportation is the only form of freight and personal transportation available. For those metropolitan areas and regions blessed with other modes of transportation, highways are the vital connecting link necessary to connect modes and to begin or complete a trip. The economic benefits which the NHS will provide through good highway access were evident to me all across the country. Further, safety of the traveling public will also be served through design improvements to the NHS and existing highways.

I look forward to the day when this Committee and the Congress takes its place in transportation history by designating the NHS. I am convinced that just as historians look back on establishment of the Interstate Highway System as a major infrastructure event, so will they evaluate the creation of the NHS. I am certain that these infrastructure investment hearings will confirm my belief that the valuable highway system created under the leadership of this Committee will be maintained and will prosper to serve us and future generations.