Private Sector Participation in Transportation

Testimony before
House Committee on Government Reform
Subcommittee on Energy Policy, Natural Resources
And Regulatory Affairs

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Mr. Chairman and Members of the Subcommittee:

My name is Shirley J. Ybarra. I am President of The Ybarra Group, Ltd., a transportation consulting firm specializing in innovative financing and public private partnerships. I am the former Secretary of Transportation for the Commonwealth of Virginia (1998-2002) for Governor Jim Gilmore and former Deputy Secretary of Transportation (1994-1998) for Governor George Allen. I have been in the private sector as president of a division of a British company and Executive Vice President of two other consulting firms. I also served as Special Assistant to Secretary of Transportation, Elizabeth Dole. My responsibilities included the legislative initiative and implementation of the transfer of National and Dulles Airports to a Regional Authority.

My testimony will provide information on the history of public private partnerships in the US, information on the Virginia initiative and specific information on the Virginia projects including the HOT lane proposal for the Beltway currently under consideration by Virginia.

Brief History of PPP's in US Transportation

There has been much written about the very early days of transportation from the Colonial era through the middle of the twentieth century and the extensive involvement of the private sector during that time. Beginning with the years after World War II however, the road and transit responsibilities in the US became more and more concentrated in the hands of government. Passenger rail, transit systems and virtually all highway construction and maintenance moved into the hands of the state and local governments.

But public funds (federal, state and local) were not keeping pace with the demand to maintain and improve the nation's extensive network of roads, bridges and transit systems. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA), Congress opened the door for private sector to again participate in transportation by increasing the flexibility to blend Federal aid with private financing and authorized more flexible operating arrangements. Section 1012 of ISTEA expanded the opportunities for Federal-aid participation in toll roads and permitted private ownership of facilities constructed with Federal-aid financing (Interstates were not permitted to utilize this provision.) Even with this flexibility, the potential was never realized,

Presidents G.W Bush and William Clinton issued executive orders (Executive Orders 12803 and 12893, respectively) to encourage private sector involvement in infrastructure investment. However, little private sector involvement was forthcoming. The states had

statutes on their books that were aligned with the traditional funding and procurement mechanisms. These statutes would have to be addressed on a state by state basis. In addition, there were long standing practices embedded in the federal and state bureaucracies as well as in the contracting community.

The State Legislative Action

Most of the early ventures and attempts at public private partnerships in the 1990's were either single project legislation or a limited number of "demonstration" projects.

For example, the Dulles Greenway legislation was enacted in 1988 for a single private road using a regulatory model. By that I mean, the private entity was to be established as a public utility and regulation of the tolls and rate of return were to be regulated as a utility by the State Corporation Commission (the Virginia equivalent of a public utilities commission).

In 1989, California AB680 authorized up to four projects in a franchise model, i.e., the construction phase was held by a franchise and then turned over to the state. The state then had the ability to lease each facility to the developers for up to 35 years.

In Washington State, five projects were authorized and proposals were submitted for many more than that. However, when the legislature changed parties, the bill was changed dramatically and sent all proposals back to the drawing boards. This undermined the private sector confidence in the Washington State model. (One project survived but not as originally envisioned).

Arizona enacted legislation in 1991 combining some of the Virginia utility model and some of California franchise model, It allowed for privately financed transportation facilities. Three projects were selected however never went to final financing. A final toll road project met with major local political opposition and in the end, it did not move forward.

Minnesota enacted legislation in 1993, however the project moving forward was vetoed by a locality.

All of this as a quick summary to demonstrate that the USA did not have a good track record in the public private partnership arena. And in Virginia, the 1994 the General Assembly enacted legislation that looked like the 1988 legislation (public utility model) for any number of projects. Governor George Allen asked that the legislation be rewritten so that it could be enacted in 1995, using a "market based" approach. The responsibility for the rewrite came directly to the Secretary of Transportation's office.

The Virginia Public Private Transportation Act of 1995

The Virginia PPTA took a more open approach to the idea of public private partnerships in transportation. For example, it ensured that project sponsors were not hampered by regulating them as utilities, as in the 1988 Greenway statute. The tolls and user fee rates are determined on a project-by-project basis and embodied in the comprehensive agreement for a given project. (there is no "regulation" by the an public utilities body, such as the SCC in the case of the Dulles Greenway)

The PPTA streamlined the application and approval process by allowing any number of projects. Further, the act did not limit the projects to highways but allowed for all modes of transportation. And finally, it included opportunities not only for capital projects but for operations and maintenance as well.

Using a "market based approach" it allowed for unsolicited proposals, thus permitting the private sector to select projects and propose a solution. Of course the public agency could also solicit proposals. The public sector maintained flexibility in setting the scope and terms of the project. The public sector maintained the responsibility for right of way acquisition. At the same time, public support was needed to advance any project and was not solely the responsibility of the public sector agency but required distribution of and support for the (unsolicited or solicited) private sector proposal. To maintain competition for the unsolicited proposal, the scheme was posted for a period of time asking others to offer competitive proposals.

The PPTA in Virginia provided an opportunity for the industry to initiate the planning, construction and maintenance process. This process encourages industry to share their knowledge with VODT on building, operating and maintaining highways. At the same time VDOT can learn new techniques. Most importantly, it provides the opportunity for the taxpayer to get the best product for their investment.

The Virginia Project Experience:

Performance Based Maintenance (Asset Management)

The first unsolicited proposal was to take over the maintenance of the Interstate Highway System in Virginia. Virginia Department of Transportation (VDOT) signed a comprehensive agreement with a private company, VMS, for fence-to-fence maintenance responsibility for 1,250 lane miles on Interstates 95, 77, 81, and 381. This five-and-one-half year, fixed-price contract with VDOT was the first interstate highway asset management project in the nation.

The facilities ranged from the urban expressway in Richmond to rural interstate South of Richmond and in mountainous terrain of Southwest Virginia. . The work included all required restorative work such as roadway resurfacing and bridge deck replacement. The level of work accomplished is that required to meet a pre-determined roadway performance criteria. An independent assessment of the cost efficiency of the pilot project estimated that VDOT saved about $16-23 million dollars over a five-year period. The cost savings have been attributed to the contractor's ability to procure labor, equipment, and material for lower costs. The contact was extended for another five years continuing levels of savings commensurate with the first five years.

The advantages for VDOT have been not only the cost savings but a guaranteed fixed price. There have been no change orders and no claims which would normally increase prices under traditional methods. Throughout the contract period the contracted sections of the road way have shown significant and steady improvement. The risk is virtually all on the contractor. When weather conditions are like they were last winter and VDOT exceeded it snow removal budget, VDOT experienced a fixed cost on 1250 lane miles.

I-895- Pocahontas Parkway

The first capital project under the PPTA was an unsolicited proposal for Route 895 in the Richmond area. The 8.8-mile, 4-lane, limited-access, divided highway includes interchanges with Interstates 95 and 295, a 200-meter clear-span, cast-in-place bridge over the James River, smaller bridges, and toll facilities. The toll system uses the "Smart Tag" AVI technology being established throughout the Northeast. The Virginia Department of Transportation (VDOT) owns, maintains, and operates the Pocahontas Parkway.

Fluor led the joint venture responsible for the financing, design, and construction of the Pocahontas Parkway (Route 895) connecting southern Chesterfield and eastern Henrico counties in Richmond, Virginia. The parkway's signature high-level river crossing, the Vietnam Veterans Memorial Bridge, allows ocean-going ships access to the Port of Richmond's Deepwater Terminal.

During the three-year development period, Fluor raised private capital funding and employed an innovative use of tax-exempt bond financing (one of the first 63-20 corporations in the US) to bring the budgeted $324 million project to reality while fostering local support and obtaining agency clearances.

Project activities included utility relocations, wetland mitigation, right-of-way property acquisition, and permitting, in addition to design and construction. Construction began in 1998. The eastbound lanes opened May 2002, and the westbound lanes four months later. The project was completed using the PPTA fifteen years ahead of the schedule it would taken to accumulate traditional state funding sources.

And finally, The Pocahontas Parkway was completed $10 million under budget. (Virginia provided $27 million of the total project budget with the remaining funds from the private sector.

Route 288 (Design Build Warranty)

The Virginia State Route 288 project also used innovative financing strategies and a performance-based approach to construct 10.5 miles of new highway, expand 7 miles of existing highway, build six new interchanges, modify two interchanges, and construct 23 bridges along the roadway. APAC-Virginia, Inc., which is partnering with CH2M Hill and Koch Performance Roads, was awarded the Virginia 288 project with a cost of $236 million. A design-build-warranty approach was chosen in order to finish the road quickly and with minimal delays.

The first section of the project was finished in December 2003, and the second phase opened in spring 2004. The final section will open shortly. This project was complete some 3 years ahead of what it would have been if a traditional state funding and procurement approach was used.

This contract also included a long-term warranty (20 years for pavement, 5 years for other aspects). Route 288 had been in the making for about 40 years and has been turned into a reality only due to the unique public-private partnership and is expected to save the state $47 million.

Other PPTA active projects in Virginia

Route 28

The Virginia Department of Transportation signed an agreement with Clark Construction Group, Inc. and Shirley Contracting Company LLC to begin design and construction of improvements along the Route 28 corridor in Fairfax and Loudoun Counties. The agreement is for the replacement of 6 interchanges and ultimately 10 interchanges along the corridor. Construction is underway and the first six interchange are expected to be completed by 2006.]

Dulles Rail

The Virginia Department of Rail and Public Transportation signed an agreement in June, 2004 with Dulles Transit Partners, LLC, a partnership of Bechtel Infrastructure and Washington Group International, to engineer, design and build the 23-mile Metrorail extension. The initial work by Dulles Transit Partners, LLC will be for Preliminary Engineering for the entire project for $45.4 million -- 8% lower than an independent engineering firm's estimate.

Preliminary Engineering will require approximately 15 months to complete and will provide more detailed cost information and an estimated schedule for project construction. Additionally, PE will address previously identified environmental issues, and resolve any major design or engineering issues that could be encountered during construction.

Interstate 81 Improvements

Negotiations currently are under way between the Virginia Department of Transportation and STAR Solutions on a proposal submitted by STAR Solutions for improving the 325 mile I-81 corridor in Virginia. Currently in the environmental process, this project is estimated to cost over $6 billion dollars. As originally envisioned, the project was to be toll lanes for trucks that would finance part of the project.

Beltway Hot lanes

Fluor Daniel proposed to develop, design, build and finance four HOT lanes (2 in each direction) on the Capital Beltway. Using electronic toll collection the lanes will be financed by tolls combined with minimal (13%) public funds to add a nearly $700 million project. Currently the Environmental studies are being completed. This project would be the first major improvement to the Beltway since it was widened in 1977. Negotiations between VDOT and Fluor began in late August, 2004.

I have attached an article from the April 2004 issue of "Road and Bridges" magazine providing additional information about the proposal.

Jamestown 2007

In anticipation of the 400th anniversary of Jamestown a proposal was submitted to VDOT to accomplish a number of smaller projects in and around Williamsburg and Jamestown, Virginia. A comprehensive agreement was signed in October 2002.. The total cost of the projects is $32 million.

Summary

Virginia has had a positive experience with it Public Private Partnership Act of 1995. Has every proposal moved forward—No. But many have and many have brought much needed improvements to Virginia sooner than what traditional methods would have allowed. The benefits are obvious:

Private Investment—expands the resources;

Innovative Financial Structuring creates non-traditional funding sources, rather than simply relying on state and federal gas tax revenues;

Schedules for projects are often accelerated (most of the projects have been completed or are expected to be completed sooner that in tradition methods and time is money);

Guaranteed cost, often at a cost savings from traditional methods;

Innovative Project Delivery –brings new ideas and concepts to the table; and,

Significant reduction of risk to the public agency as the risk is shifted to the project manager

And finally, as noted in the Virginia experience, public private partnerships are not just about toll roads. It must be said it is not for every project but PPP's can be an important tool for addressing infrastructure needs.

Loosening the belt

A closer look at how I-495 officials sold the HOT lane concept

For close to three decades, the roadway has not kept up with prescribed standards to alleviate safety and operational concerns. The proposed HOT lanes will in most cases bring the roadway up to present highway standards.

- Gary Groat, Contributing Author

Northern Virginia has the most traveled roadway in the Commonwealth of Virginia—14 miles of the Capital Beltway (I-495). As its primary use has shifted from serving through traffic bypassing Washington, D.C., to a major local commuter road, the Beltway is traveled by up to 240,000 vehicles daily. This amount of travel demand on the Beltway routinely exceeds capacity resulting in long traffic tie-ups and unsafe driving conditions. Fluor Daniel is proposing adding high-occupancy toll (HOT) lanes, which are financed primarily by tolls, on the Beltway to alleviate the severe traffic congestion and meet projected transportation volume of 320,000 vehicles per day by 2020.

The last major improvement to the Beltway, which was constructed in 1964, occurred in 1977 when it was widened to eight lanes. For close to three decades, the roadway has not kept up with prescribed standards to alleviate safety and operational concerns. The proposed HOT lanes will in most cases bring the roadway up to present highway standards.

The HOT look

Fluor Daniel submitted its conceptual proposal to develop, finance and design-build the Capital Beltway HOT lanes to the Virginia Department of Transportation (VDOT) under the Public-Private Transportation Act (PPTA) of 1995. The year was 2002 and VDOT had recently completed a draft Environmental Impact Statement (EIS) and the pursuant public comment period on proposed improvement alternatives. Along with more than 900 citizens, Fluor Daniel attended the three VDOT public hearings and heard numerous comments supporting or opposing the three widening alternatives. These citizen comments gave Fluor Daniel the ideas that ultimately became the HOT lane concept.

The proposed four HOT lanes, two in each direction, will be added in the center of I-495 extending 12 miles from west of the Springfield interchange to south of the Georgetown Pike (Rte. 193). Separating these lanes from the adjacent general-purpose lanes will be a 4-ft yellow-striped buffer and orange plastic pylons. Eight general-purpose roadways, four in each direction, will complete the continuous 4-2-2-4 lane configuration. The HOT lanes could operate at 65 mph with the general-purpose lanes continuing to operate at the current 55 mph. To ensure reliable and free-flowing traffic conditions, the HOT lanes would be actively managed by VDOT.

Two of the seven entry/exit HOT lane points will have direct ramp-to-ramp access at I-66 and the Dulles Airport Access and Toll Road. Intermediate entry/exit points near Rte. 123, U.S. Rte. 50 and Braddock Road will provide access from all other intermediate Beltway interchanges. The general-purpose lanes will connect to all interchanges to and from the right.

As proposed, the concept stays substantially within the existing right-of-way with minimal displacement of only six residential structures. Some narrow strips of land adjacent to the Beltway along the existing right-of-way will be required to allow for the additional lanes, retaining walls, sound walls and utility easements. In comparison, earlier EIS alternatives considered by VDOT indicated more than 300 homes and businesses would be taken and some 103 to 168 acres of land acquired. Placing the HOT lanes within the existing Beltway reinforces rather than damages residential and business development patterns in a corridor key to Fairfax County's economic vitality.

Air quality joins displacement as a prominent quality-of-life issue surrounding any road capacity increase. A qualitative analysis of the potential regional air quality impacts of HOT lanes on the Capital Beltway prepared by the Metropolitan Washington Council of Governments (COG) for Fluor Daniel indicates such lanes perform much better than conventional widening solutions. The preliminary COG study found that adding HOT lanes to the Beltway will result in a slight increase in volatile organic compounds (VOC) and a moderate increase in oxides of nitrogen (NOx) emissions. COG also concluded that its estimates "are conservative, i.e., likely to overestimate emissions" because the study did not account for emission reductions associated with a decrease in cut-through traffic on adjacent streets and the projected reduction in traffic on the general-purpose lanes of the Beltway.

Electronic toll collection (ETC) facilities will be located at each HOT lane access point. A Smart Tag/E-ZPass will be required to use the HOT lanes. Patrons must establish and maintain a valid Smart Tag/E-ZPass account. The ETC system will capture the data necessary to process the transaction and store it for processing. Tolls are assessed electronically, recorded in transaction records and posted to customer prepaid toll accounts maintained in the Smart Tag/E-ZPass Customer Service Center. For a vehicle using the HOT lanes without a valid Smart Tag/E-ZPass, the ETC system will digitally photograph the offending vehicle and retain its rear image for violation processing.

Toll revenues from non-HOV vehicles are the primary funding source for the $694 million capacity increase. Depending on time of day, HOT lane fees for one- and two-passenger vehicles will vary from $1 in off-peak hours to $4.80 at peak demand. Tolls collected will repay the toll revenue bonds and Transportation Infrastructure Finance and Innovation Act (TIFIA) loan financing for 87% of construction costs. Virginia and Fairfax County will have no general or

moral obligation for these bonds and loan. The public share of the cost is estimated to be 13%.

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Fluor Daniel's HOT lane concept represents a major new multimodal facility for the Washington, D.C., region. It will offer beneficial enhancements affecting the existing HOV facilities, express bus rapid transit (BRT), the slug system and Metrorail station access.

Introducing HOT lanes on the Capital Beltway will create 12 miles of new HOV facilities and provide the missing link to connect existing HOV facilities on I-95/395, I-66 and the Dulles Toll Road. In addition, the HOT lanes provide a BRT guideway at no cost to area transit agencies on which these vehicles could operate at higher and more reliable speeds as compared with the existing, congested general-purpose lanes. The informal car-pooling of the current slug system would be supported and ride-sharing opportunities expanded in the Dulles corridor, linking western Fairfax County with the I-395 corridor by way of the Capital Beltway.

The HOT lanes have the potential to improve connectivity between future express bus service and existing and future Metrorail stations linking many neighborhoods to the regional Metrorail system. Both the Capital Beltway EIS and Capital Beltway Rail Transit Feasibility Study envisioned a connection between the Dunn Loring Metrorail Stations and bus transit service on the Capital Beltway. Such a connection would link many neighborhoods to the regional Metrorail system and be much improved over the present situation.

After reviewing Fluor Daniel's unsolicited conceptual proposal, VDOT in accordance with the PPTA process advertised for competing proposals for 120 days and received no responses. Next, the Commonwealth Transportation Board (CTB) advanced Fluor Daniel's concept to the detailed proposal phase. Following receipt of the detailed proposal in October 2003, the PPTA advisory panel will hold one or more meetings to solicit public comment. Independent of the PPTA process, VDOT is conducting the required National Environmental Policy Act (NEPA)/EIS analysis and will hold public workshops in spring 2004. Written comments will be solicited by VDOT for both the PPTA proposal and the final EIS.

Under NEPA, will evaluate the various comments on Beltway build alternatives against a no-build alternative and issue a NEPA-build or no-build decision this spring as well. VDOT's decision will be documented in the final EIS and record of decision (ROD), both scheduled for completion December 2004. If all environmental and contractual negotiations and clearances are completed by 2004, construction can begin in early 2005, with the HOT lanes fully operational on the Beltway in 2009.

Support group

The proposed Beltway HOT lanes have a wide base of support that cuts across both the public and private sectors. State and county public officials are on record supporting HOT lanes, major print and television media have commented favorably, businesses are proponents of them and the general public is finding the HOT lane plan appealing. HOT lanes on the Beltway are included in Fairfax Board of Supervisors Chairman Gerry Connelly's 4-Year Transportation Plan that the full board endorsed Feb. 9, 2004.

Fluor Daniel funded an independent public opinion survey of 600 citizens that indicates 62% support for adding HOT lanes to improve the Beltway capacity. In the September 2003 survey, support for HOT lanes increased even more if improved travel time is consistently reliable, trucks are restricted, BRT option is included and variable toll is used while a free option also is maintained.

Evaluation of the HOT lane concept continues as part of the ongoing Capital Beltway EIS and PPTA processes. As the public becomes more informed about the specifics of Fluor Daniel's concept, indications are that most—not some—like HOT lanes for the Capital Beltway in northern Virginia.

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