NEW VOICES
IN PUBLIC POLICY

VOLUME 1
SPRING 2007

FUNDING NEW INFRASTRUCTURE: VIRGINIA'S PUBLIC PRIVATE TRANSPORTATION ACT EXPERIENCE, 1995-2006

James Webb Jones, J.D.[1]

GEORGE MASON UNIVERSITY | School of Public Policy

Introduction

This paper examines the Commonwealth of Virginia's experience utilizing a state Public Private Transportation Act [PPTA or the Act][2] to promote funding for new infrastructure. Virginia's PPTA is an initiative that federal highway officials recommend as a model for public private partnership legislation.[3] Federal highway researchers have performed an exhaustive 28-point analysis of Virginia's PPTA and found it to be extremely flexible.[4]

Transportation professionals have begun turning to Public Private Partnerships [PPP] to fund infrastructure in the face of "… growing concerns about the size of federal and state budget deficits, the long-term viability of financing the nation's highway and transit systems through motor-fuel taxes… future mandatory commitments to Social Security and Medicare… [recognizing the] need to … ensure that transportation investments maximize the benefits of each federal dollar invested."[5] This paper explains that Virginia has been able to accelerate some substantial projects without the use of federal highway construction funds by converting federal projects to PPP status. Virginia's pioneer use of the PPP dating back to 1988 and construction of the Dulles Toll Road[6] should afford some advantage in the market for PPP investments. In the United States, growth and competition in the PPP market is expected and experience with investors likely is an asset, since then Transportation Secretary Mineta predicted that "… every highway project in the planning phases over $500 million [is] expected to be a toll road."[7]

This paper will review Virginia's PPTA project history and the use of the PPP concept and tolls in the United States. The paper will then focus on recent PPTA developments in Virginia including the June 29, 2006, $548 million concession arrangement concluded with an Australian toll operator to manage and maintain the 8.8-mile tolled Pocahontas Parkway near Richmond.[8] Finally, this paper will present some conclusions about Virginia's experience.

The History of Public Private Partnerships in Virginia

Virginia was a pioneer in promoting Public-Private Partnerships, as it conceived the Dulles Greenway project and enacted the Highway Corporation Act of 1988 to enable its birth.[9] In this first PPP venture, a financial crisis threatened the Greenway, but the project survived "after restructuring its debt … and has since seen revenues grow steadily."[10] The Dulles Greenway "… was the first purely private toll road in the United States in over 100 years."[11] Currently, there are active PPP proposals for both the Dulles Road's improvement, maintenance and toll operations,[12] as well as an extensive new 23-mile light rail project—known as Dulles Metrorail—that extends the D.C. Metro Orange Line from East Falls Church Station along a Tyson's Corner-Reston-Herndon-Dulles Airport-Eastern Loudon County Corridor.[13] On April 28, 2005, then VDOT Commissioner Philip Shucet signed a Comprehensive Agreement for a PPTA project to provide High-Occupancy Toll (HOT) lanes for I-495 on the Capital Beltway "between Springfield and the Dulles Toll Road."[14]

Since 2002, Virginia has completed three PPTA projects: (1) Route 288 extending approximately 30 miles with several interchanges running from I-95 south of Richmond, northwest through heavily populated Chesterfield and Henrico Counties, and to I-64 West of Richmond; (2) the 8.8 mile Pocahontas Parkway with a high bridge over the James River; (3) Jamestown 2007 or Route 199, a five-phase $31.8 million PPP converted from a federal project in order to build the project well before the traffic anticipated for the 400th Celebration of the Jamestown Settlement.[15]

Other approved or active projects include: the Route 28 Freeway in Northern Virginia with a combined commitment in excess of $200 million and six interchanges that will be expanded to ten; the I-95 & 395 HOT Lanes; the Coalfields Expressway in Bristol District;

Route 58, a 36 mile design/build job between Hillsville and Stuart "when funding becomes available; I-81 improvements to separate car & truck traffic; Third Crossing Bridge-Tunnel in Hampton Roads."[16] The financing for the Route 28 Project is provided by state highway funds and proceeds from revenue bonds. These bonds will be repaid by taxes assessed to residents and properties that benefit from this construction in the Special Route 28 Tax District.[17]

The Pocahontas Parkway is a major project valued in excess of $318 million, of which $300 million was funded by a revenue bond issue that is not encumbering the credit of the state and will be repaid from tolls.[18] The cost of the Pocahontas project accelerated when the design called for a bridge over the James River high enough to accommodate ships without stopping traffic by opening a draw and tolls proved in the short run to be inadequate to service the bond debt.[19] On June 29, 2006, following 18 months of negotiations, a 99-year concession was awarded to Transurban USA, a private Australian toll operator for a price of $548 million.[20] A consortium of banks from Ireland, Spain and Germany provided new Pocahontas financing and upon the award of a $150 million federal TIFIA[21] loan, Transurban will construct a new 1.58 mile four-lane road connecting the project to Richmond International Airport, refinance $95 million long term debt and upgrade electronic tolling systems.[22] Pocahontas PPP is the first project where TIFIA funds have been used to refinance long-term debt.[23] Congress established "… the TIFIA Credit Program… to leverage Federal funds by attracting substantial private and other non-Federal co-investment in critical improvements to the nation's surface transportation system."[24]

VDOT[25] continues actively to seek PPTA projects and a number of possible projects are shown in the footnotes.[26] These projects in current dollars are estimated at $5-$15 billion if they could be built today.

Funding Infrastructure through PPP Innovations: The Political & Economic Climate at the National Level and Its Influence on the Virginia Experience

Beginning in 1792 when Pennsylvania chartered the Philadelphia and Lancaster Turnpike, private investors financed many roads by tolls until about half way through the 19th century.[27] A 2004 GAO compilation of statistics shows our most recent data on tolling:

(a) 4 million total miles of roads;

(b) Approximately 437,000 arterial miles of roads;

(c) 4,611 miles of public-owned toll roads – about 1% of arterial mileage;

(d) 15 privately owned toll roads -- only 111 miles (10 of these for property/vacation area access);

(e) 15 privately owned toll bridges.[28]

From the above, it is obvious that the U.S. today has little infrastructure that is publicly or privately tolled. While 2,102 miles of in-place toll roads were allowed to be a part of the Interstate System in 1956, when "… construction of the Interstate System began, proposals for additional toll roads languished … [in] 1963 the last of the toll roads planned before the Interstate System … opened, and few additional proposals were seriously considered for many years."[29]

PPP projects in the U. S. often have not involved tolled facilities but have been "Design-Build or Management Contract" approaches.[30] However, with Secretary Mineta's recent warning that large projects will be tolled,[31] the market nationally for PPP tolled infrastructure will most certainly be expanding. Virginia can hope to be a PPP leader on a larger scale in such expansion, as a growing federal deficit and other demands remain a major concern for transportation professionals competing for available resources.[32]

Virginia's PPP Perspective

Turning now to transportation funding in Virginia, the Commonwealth's motor fuel tax is among the lowest in the nation at 17.5 cents per gallon, has not been raised since 1986, and in the intervening 20 years "…these revenues have lost 40% of their purchasing power as a result of inflation."[33] The senior Virginia legislators controlling transportation financing, Speaker of the House of Delegates William J. Howell and House Transportation Committee Chairman Leo C. Wardrup, sincerely believe that VDOT must "… pursue private sector help for road building … [and] develop a detailed plan to increase private investment and increase the use of public-private partnerships," especially considering the reduced purchasing power of fuel tax dollars.[34] Speaker Howell and Chairman Wardrup also sincerely believe that the people of Virginia are opposed to any tax increases to establish dedicated sources of revenue for transportation.[35] The VDOT Fiscal Year 2007 Business Plan enunciated September 21, 2006, by then Acting Commissioner Gregory Whirley[36] accepted the call of Virginia's political leaders to engage the private sector and reported on the strength of the Agency's Innovative Project Delivery unit that promotes and shepherds PPTA projects from conception through completion.[37] The FY 2007 Business Plan acknowledges VDOT's commitment to remain "nimble and flexible as a business to respond to changing conditions" [*i.e.* declines in funding] while delivering the best transportation programs, systems and management possible with the resources at hand.[38] Striving to utilize the PPP concept to the fullest, VDOT in May 2005 signed its first PPTA Comprehensive Agreement *to include the contribution of private equity*[39] (HOT Lanes, I-495) and, on January 6, 2006, announced the execution of nine comprehensive agreements for PPTA projects valued at $2 billion.[40] VDOT's new Commissioner, David Ekern, appointed in late September 2006, announced early that he holds as a top priority working "… with the private

sector and … federal, state and local partners to speed innovative 21st century traffic management improvements to the congested areas of the state," and at the same time, he announced that he had signed an interim PPTA agreement "… to bring innovative high-occupancy toll (HOT) lanes to Interstates 95 and 395."[41]

Analysis and Conclusions

With $2 billion in infrastructure in place or proceeding through the PPTA process and the prospect of projects in the billions presently under future consideration, Virginia stands on the threshold as ready as any state to use PPPs to deliver and finance transportation infrastructure. Because Virginia has had significant experience with PPPs, it has dealt with problems and met challenges.

Elliott Sclar, one of the best known American scholars on privatization, has noted that "[o]versight is a classic problem in public contracting… [and] the terms of the contract itself… [can make]… the nature of oversight vague."[42] VDOT is currently defending a counterclaim in a lawsuit that has arisen from the Route 199 PPTA project in Williamsburg where VDOT allowed a project corporate property owner to build a privately-owned sound barrier on a VDOT right of way.[43] While a federal project, FHWA required VDOT to construct certain sound barriers that were not required when Route 199 became a PPP.[44] Such litigation arising from changing conditions can be avoided in the future with attention to contract terms and oversight.

VDOT senior managers with the benefit of hindsight have considered whether the design and build high bridge feature of the Pocahontas PPP may have pushed project debt to limits that contributed to financial problems.[45] Experience with contract administration can help managers forecast potential pitfalls.

Prior to the PPP innovations contained in the SAFETEA-LU[46] federal legislation, federal research had concluded that nationally "… active private sector sponsorship and investment seem unlikely to stimulate significant increases in the funding available for highways and transit."[47]

Before SAFETEA-LU, the federal toll emphasis was on "pricing" to control congestion. SAFETEA-LU, with its new allocation of federal funds for tolled infrastructure, leads transportation scholars to suggest that "… the federal government is beginning to recognize the need … to use tolling to undertake new highway … expansions."[48] In Virginia, the PPP concept has not yet attracted new private capital in significant amounts, although the I-495 HOT Lanes for the first time will bring significant private money. The Pocahontas Parkway lease of June 29, 2006 brought significant private capital investment to the state. Critics who say that the PPTA in Virginia has so far offered nothing new in the way of infrastructure finance[49] need to consider the HOT Lanes and Pocahontas examples.

Any analysis of state PPP infrastructure funding must address the fact that the Virginia experience with PPP finance has been typically American. One cannot ignore that "… the United States … has a strong appetite for public debt and has structured its tax code … [to create incentives for] the use of tax free municipal bonds to develop public infrastructure."[50] The desirability of tax free bonds has added a dimension to American infrastructure finance that distinguishes the American experience from that of Europe and is likely the chief reason why American PPPs had not attracted significant private capital when GAO-04-419 was published. The tax exempt bonds held by Virginians that have so far been a main source of funding for PPP highway projects have admittedly cost Virginia amounts ranging from $1-$3 million in lost tax revenue.[51] However, Virginia's PPP experience includes more than $2 billion in new

infrastructure that would still be deferred but for VDOT's goal shared with the General Assembly to make Virginia a leader in PPP infrastructure building.

SAFETEA-LU became law in August of 2005 presenting new state opportunities in PPP highway federal funding. Virginia, with its PPTA history and experience, is well positioned to capitalize on the opportunities. However, much that SAFETEA-LU offers the states by way of innovation for PPPs is in the form of "pilot" funds that can be garnered by competing states with better revenues than Virginia.[52]

Scholars who have examined various public-private partnerships have seen "movement toward closer partnerships, involving joint financing and responsibility… [in the fields of] transportation, energy and applied technology research."[53] Caution from a writer who reviewed extensive literature directs attention to the possibility that "… when partnerships fail through bankruptcy, inability to meet goals [etc.] … government is the provider of last resort … [and] when partnering involves essential services… is expected to fulfill the … responsibilities of failed private sector partners [references omitted]."[54] Virginia's state transportation professionals appear aware of the state's ultimate responsibility for essential services and the need for strong partners.[55]

The potential for Virginia's PPTA future is demonstrated by a recent article discussing some interesting PPP models for road pricing that include bus rapid transit and suggests three demonstration projects in the Northern Virginia suburbs: the Dulles Toll Road, Interstate 66, and the Capital Beltway.[56] The modern and flexible Act that Virginia has in place provides a climate for such proposals.

Virginia's $2 billion and rising PPTA experience is significant among the 50 states because from 1985:

> … PPP projects represent a $104 billion investment in infrastructure… of which $42 billion is for roads, bridges and tunnels. This [$42 billion] represents 13 percent of the total PPP funding for highway-related projects worldwide… [but] what is new is the growing interest in and variety of funding, financing, and project delivery approaches that are emerging under the guise of public private partnerships. … Even in the United States, where a substantial dedicated funding mechanism long supported a robust highway development program, there is growing recognition that traditional infrastructure funding and delivery approaches are inadequate to meet the increasing economic development and mobility needs of citizens and businesses alike, while keeping the existing highway system in a state of good repair.[57]

Virginia's challenge is to dedicate and appropriate sufficient state funds so as fully "… to promote PPPs for new infrastructure under the … SAFETEA-LU reauthorization of the Federal-Aid Highway Program… ."[58] The Virginia experience suggests that the widest, most ambitious use of PPP relationships will still require significant transportation monies from the state treasury.[59]

---

[1] **This paper represents only the personal views and research of the author as a graduate student in Transportation Studies and in no way represents an official position or opinion of either the Virginia Department of Transportation or the Office of the Attorney General of Virginia.** The author gratefully acknowledges the assistance of Professor Jonathan Gifford, Ph.D., George Mason University, School of Public Policy, for suggestions as to the scope of the topic and encouragement to publish this paper.

[2] See § 56-556 et seq., Code of Virginia, 1950, as amended, first effective in 1995.

[3] Hon. Norman Y. Mineta, Secretary of Transportation, letter to Hon. Hon. Thomas E. Petri, Chair, Subcommittee on Highways, Transit & Pipelines of Committee on Transportation Infrastructure, U.S. House of Representatives, May 24, 2006, p. 1.

[4] PPP Legislation, Analysis for State of Virginia, http://www.fhwa.dot.gov/ppp/legis_virginia.htm

[5] Government Accountability Office, Report to Congressional Committees, Highway and Transit Investments, Options for Improving Information on Projects' Benefits & Costs & Increasing Accountability for Results, GAO-05-172, January 2005.

[6] Benjamin G. Perez & James W. March, "Public-Private Partnerships and the Development of Transport Infrastructure: Trends on Both Sides of the Atlantic," First International Conference on Funding Transportation Infrastructure, Institute of Public Economics, University of Alberta, Banff Centre, August 2-3, 2006.

[7] Mineta, *op. cit., p. 2.*

[8] FHWA Case Study, Virginia Route 895 (Pocahontas Parkway), http://www.fhwa.dot.gov/PPP/pocahontas.htm

[9] Government Accountability Office (then known as General Accounting Office), Report to Congressional Requesters, Highways and Transit, Private Sector Sponsorship of and Investment in Major Projects Has Been Limited, GAO-04-419, March 2004.

[10] Interview with senior VDOT Central Office Management upon agreement not to reveal identities; see also Perez and March, *op. cit.*, p. 10.

[11] *Ibid.*

[12] Dulles Toll Road, http://www.virginiadot.org/projects/dullesHome.asp

[13] Dulles Metrorail, http://www.dullesmetro.com/about/index.cfm

[14] VDOT website, http://www.vdot.virginia.gov/projects/ppta-defaultHOTLANESCapitalBeltway.asp

[15] VDOT website, www.vdot.virginia.gov/business/ppta-CompletedProjects.asp; [PPTA Completed Projects].

[16] VDOT website, www.vdot.virginia.gov/business/ppta-ActiveProjects.asp; [PPTA Active Projects].

[17] Route 28 PPP Website, http://www.28freeway.com/index.html

[18] The National Council for Public-Private Partnerships website, http://www.ncppp.org/cases/pocahontas.shtml; the NCPPP is a trade organization promoting the merits of PPP operations and awards of contracts and did not report the lagging tolls for this project that encouraged VDOT to look for an investor toll operator to take over the facility.

[19] Interview with senior VDOT Management, November 8, 2006.

[20] Federal Highway Administration, PPP Case Studies, http://www.fhwa.dot.gov/PPP/pocahontas.htm

[21] Transportation Infrastructure Finance and Innovation Act of 1998

[22] FHWA PPP Case Studies, http://www.fhwa.dot.gov/PPP/pocahontas.htm

[23] *Ibid.*

[24] FHWA Manual for Using Public-Private Partnerships on Highway Projects (2005), p. 10.

[25] Virginia Department of Transportation

[26] VDOT website, www.vdot.virginia.gov/business/ppta-UpcomingProjects.asp**;** the Southeastern Parkway and Greenbelt proposes to extend from the interchange of Interstates 64 and 464 in Chesapeake easterly to a point on I-264 near Oceana Naval Air Station; the Midtown Tunnel Corridor features a new Norfolk-Portsmouth tunnel serving the congested area near the large Portsmouth Marine Terminal and the even larger Maersk Marine Terminal; the proposed Route 460 toll road running westerly from Suffolk to I-95 would provide: a safer limited access road, an additional emergency evacuation route from Hampton Roads in the event of a severe hurricane or a coordinated terrorist attack on the area's port facilities or Armed Forces bases; and a route to mitigate the projected doubling of truck traffic from new port capacity.

[27] United States Department of Transportation, Report to Congress on Public-Private Partnerships, (December 2004), p. 15.

[28] GAO-04-419, *op. cit.*, pp. 7-8.

[29] U.S. DOT Report to Congress, (December 2004), *op. cit.*, p. 16; The writer recalls the celebrations in Hampton Roads when tolls were removed from the Elizabeth River tunnels and the Virginia Beach Expressway.

[30] U.S. Department of Transportation, Federal Highway Administration, Synthesis of Public-Private Partnership Projects for Roads, Bridges & Tunnels From Around The World – 1985-2004, prepared by AECOM Consult, Inc., (August 30, 2005), pp. 31-36 [cited hereafter as FHWA, PPP Around the World Synthesis].

[31] Mineta, *op. cit.*, pp. 2-6. Every project currently planned for "more than $500 million [is] expected to be a toll road." Also see footnote 3.

[32] GAO-05-172, *op. cit.*, p. 2; The nation must deal with servicing the debt the federal deficit represents, managing increasing Medicare and Social Security benefits for an aging population, the aftermath of Hurricane Katrina, the ground wars in Iraq and Afghanistan, domestic security measures in the War on Terror and effects of inflation on static fuel taxes.

[33] VDOT website, Funding Trends, www.virginiadot.org/about/resources/FactBookFundingTrends.pdf ; See also Motor Fuel Excise Tax Rates, Federation of Tax Administrators, http://www.taxadmin.org/FTA/rate/motor_fl.html

[34] The Associated Press, Culpeper Star Exponent, September 14, 2006, pp. 1-2, http://www.starexponent.com/servlet/Satellite?pagename=CSE/MGArticle/CSE_MGArticle&c=MGArticle&cid=1149190617903; Session begins September 27, 2006.

[35] Tim Craig, Washington Post, September 14, 2006, http://www.washingtonpost.com/wp-dyn/content/article/2006/09/13/AR2006091302047 ; Christina Nuckols, *The Virginian-Pilot*, September 14, 2006, sec. B, p. B1.

[36] Now VDOT's Chief Deputy Commissioner upon the arrival of newly appointed Commissioner David Ekern from Idaho's DOT.

[37] VDOT Business Plan Overview (September 2006), p. 7 & pp. 22-24.

[38] *Ibid*. p. 5.

[39] Emphasis supplied.

[40] VDOT Agency Strategic Plan (January 2006), p. 3.

[41] VDOT Press Release CO-0655, http://www.virginiadot.org/infoservice/news/newsrelease.asp?ID=CO-0655

[42] Elliott D. Sclar, *You Don't Always Get What You Pay For/The Economics of Privatization*, Cornell University Press (2001 Paperback Ed.), p. 34

[43] CTC v. Williamsburg Landing, Inc., Civil Action No. 10736, Williamsburg/James City County Circuit Court records.

[44] *Ibid.*

[45] Interview. Senior VDOT Manager, November 7, 2006.

[46] Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users. Public Law No. 109-59, 119 Stat. 1144; signed by the President on August 10, 2005.

[47] GAO-04-419, *op. cit.*, p. 30.

[48] Perez and March, *op. cit.* p. 15; See also FHWA Manual for Using Public-Private Partnerships on Highway Projects (2005), pp. 38-43 for details of new provisions for bonds and flexibility for toll use, broadened TIFIA funding, State Infrastructure Bank provisions, Toll Pilot Programs, Express Lanes Demonstration Program, etc., all designed to make "it easier and more attractive for the private sector to participate in highway infrastructure projects."

[49] James J. Regimbal, Jr., An Analysis of the Evolution of the Public-Private Transportation Act of 1995, Southern Environmental Law Center, January 2005; Regimbal's analysis is for an

environmental advocacy group and at the time of publication did not have the advantage of later published data cited herein.

[50] Perez & March, *op. cit.*, p. 15; see also FHWA, PPP Around the World Synthesis, pp. 35-36.

[51] GAO-04-419, *op. cit.*, p. 18.

[52] No one can predict the transportation budget that will come from the 2007 Session of the Virginia General Assembly, although hopeful expectations have been communicated to this writer in interviews immediately following the November 2006 federal elections by persons close to those holding control of the Virginia transportation budget process.

[53] Pauline Vaillancourt Rosenau, "The Strengths and Weaknesses of Public-Private Policy Partnerships," *American Behavioral Scientist,* 43, No. 1, (September 1999): 26

[54] *Ibid. p*. 21.

[55] www.virginiadot.org/business/ppta-Guidelines.asp; Revised Guidelines Draft of August 15, 2006 is not final yet. Following the 2006 General Assembly Session/Special Session VDOT has been asking for Public Comment for improving its Implementation Guidelines under the PPTA of 1995, as amended; Virginia's Pocahontas PPP experience has also demonstrated the need for strong partners.

[56] Patrick DeCorla-Souza & William G. Barker, "Innovative Public-Private Partnership Models for Road Pricing/BRT Initiatives," *Journal of Public Transportation,* 8, No. 1 (2005): 57-78.

[57] FHWA, PPP Around the World Synthesis, *op. cit.* pp. 35-36.

[58] *Ibid.* p. 36.

[59] Eric Weiss, Washington Post, October 23, 2006, http://www.washingtonpost.com/wp-dyn/content/article/2006/10/22/AR2006102201081_pf.html; for example, this article entitled, *Rising Costs Strain Private Partners* about HOT Lanes between Springfield & Georgetown Pike on the Virginia portion of the Capital Beltway explains the likely need for $100 million in state funds for this PPP to succeed.