

An Analysis of the Evolution of the Public-Private Transportation Act of 1995

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Executive Summary

There has been a dramatic increase in the use of the Public Private Transportation Act of 1995 (PPTA) for construction projects. While only one project has been completed (not including the interstate maintenance contract), one is almost complete, four others are underway, five are under active consideration or negotiation, and there are requests for information to gauge interest in at least two other projects. The Governor is also proposing to the 2005 General Assembly a \$140 million revolving loan fund that would provide up to \$30 million per project for no interest loans to cover the initial development costs of PPTA projects. Other PPTA legislation is also expected to be submitted this session to facilitate the review and development of projects.

The PPTA was designed to leverage public sector transportation funding by attracting private sector risk capital and to bring private sector creativity and efficiency to the task of building transportation projects. While some evidence exists that private sector creativity and efficiency can advance and improve the building of individual projects, there is little evidence that private sector risk capital will be attracted to significantly expand the pool of available transportation revenues. Rather, PPTA projects have been funded almost entirely with either traditional transportation funds, or municipal bond debt backed by tolls or other public tax sources supplemented with traditional state and federal transportation revenues.

Moreover, the evidence suggests that the PPTA process has gone beyond its original intent and is now driving the transportation policymaking process to an extent not originally envisioned. As available transportation construction dollars decline, transportation decision-making authority is shifting from the Commonwealth Transportation Board (CTB) to the PPTA proposer and the “responsible public entity” in charge of implementing the project (e.g., VDOT, DRPT, and local governments). The CTB is charged with the location, decision-making and financing of transportation projects in Virginia. However, it has no statutory role and only a small “guidelines” role to play in the PPTA process. If the PPTA is going to be used as a method for soliciting

ideas on whether to build or what to build, as opposed to *how* to build a transportation project, the enabling statute should be changed to put more decision-making authority into the hands of policymakers instead of agency management and staff, just as the Secretary of Transportation was made Chairman of the CTB in the mid-1990's instead of the VDOT Commissioner to distance line agencies and staff from CTB policymakers.¹

The PPTA has evolved into a process of large construction consortiums proposing design/build projects that primarily use taxpayer subsidized revenue bonds backed by tolls or local taxes, supplemented with whatever traditional government transportation revenues are available (see box below). In short, a parallel decision and prioritization process is being created outside the established CTB process. The PPTA process should be used as one tool to fulfill Virginia's transportation policies as opposed to a mechanism that is creating policy.

<u>PPTA Proposals</u>	<u>Revenue Sources</u>
Dulles Rail Extension	Federal, Excess Dulles Toll Road State \$, Local Taxes
I-495 HOT Lanes	Tolls, State Funds
I-95 HOT Lanes	Tolls
I-81 Widening	Tolls, State and Federal Funds
3rd Hampton Roads Crossing	Tolls, State Funds

As a result, the PPTA process has accelerated projects of uncertain merit, if one were to look at traffic levels and likely toll revenue (such as the Pocahontas Parkway). Projects using off-the-top state funding have been given priority funding over other projects in the CTB's six-year transportation plan (Route 288, Route 58, Coalfields Expressway). PPTA projects that have not yet achieved consensus or been recommended through the normal transportation decision-making process in the CTB are being negotiated by VDOT (I-81 widening). Major PPTA transportation projects have been recommended

¹ Improving multi-modal policies have been one of the results of this change, as recently evidenced in the CTB's "VTrans 2025" policies. <http://www.sotrans.state.va.us/VTrans/home.htm>.

before a full alternatives review has occurred under the National Environmental Policy Act (NEPA) process, appearing to at least bias the outcome in favor of the PPTA proposal and undercutting the role of public input and the CTB in recommending an alternative. PPTA projects are being proposed that support ever-widening suburban/exurban growth in Virginia, before determining whether alternatives such as high-speed rail offer a better solution and without adequate consideration of land-use impacts (I-95 HOT lanes). Finally, PPTA ideas are being solicited to assess project viability before consensus has even been achieved on *whether* a project should be built (Western Transportation Corridor).

These developments raise serious policy issues. Although public-private partnerships can be a useful tool, the PPTA statute and implementing guidelines need to be revised to address the shortcomings increasingly evident in the ten years since the PPTA was adopted.

Recommendations for Improving the PPTA Process

- Give the Commonwealth Transportation Board a more direct statutory role in the PPTA.
 - Require any PPTA proposal to be part of the CTB six-year transportation plan before an Advisory Panel is appointed to review a detailed proposal.
 - Require CTB approval of any Advisory Panel recommendation before negotiating a comprehensive agreement.
 - Have the CTB confirm the appointments to the Advisory Panel.

- Provide more clarity in the PPTA statute and/or guidelines for considering a PPTA proposal before the NEPA process has concluded.
 - As a condition of signing a PPTA comprehensive agreement, the CTB should have approved the project as a recommended NEPA alternative; or
 - Provide more clarity concerning what is negotiated with a PPTA proposer before a NEPA recommendation is made by the CTB.

- Require a proposer to invest a certain amount of equity in a toll project or buy a certain percentage of the bonds floated for a toll road project.
- Require a proposer to pay for an independent CTB verification of traffic and cost estimates.
- Review and update VDOT design-build limitations to lessen the need for PPTA design-build proposals.
- Provide clear guidance on the use of non-compete clauses in any PPTA comprehensive agreement.
- Include more of the PPTA process in the statute, rather than rely on guidelines and interpretations that can be easily altered.
- Institute a public comment period as part of the PPTA Advisory Panel process by mandating a traditional public hearing early in the process.

Introduction

Virginia has been at the forefront of states in crafting and utilizing the public-private transportation concept (See Appendix). The Public-Private Transportation Act of 1995 (PPTA) authorizes private entities to acquire, construct, maintain and/or operate “qualifying transportation facilities” under agreement with a “responsible public entity”.² The original intent of the PPTA was to supplement public funding with private sources of money and encourage creative, timely and less costly transportation projects. Virginia’s hope was that private sector funding and ingenuity would increase and speed the development of projects. Supporters of the PPTA believe that it results in: 1) better project management and economies of scale resulting from a design/builder’s understanding of the entire scope of the project; 2) assumption of upfront risk and equity by the proposers; and 3) innovative ideas can be brought to the table.

Given the increasingly limited public resources available for constructing transportation projects in Virginia, the use of the PPTA has been accelerating. Since state transportation revenues can cover fewer new construction projects, the funding “vacuum” is being filled by the PPTA. The PPTA concept is also expanding from simply financing and efficiently building consensus projects to being part of the process for deciding major transportation policy issues. This rapid and substantial evolution raises questions about whether the existing PPTA statute and process are suitable for these new uses. This paper will explore the application of the PPTA over the past 10 years and whether improvements to the law and related guidelines for implementation should be made.

One state project has been completed under the auspices of the PPTA (Route 895, the Pocahontas Parkway). There is also an interstate maintenance contract under PPTA. Five other state projects are currently under construction, and one of these, Route 288, is almost complete. The other four state projects with comprehensive agreements that are underway include Route 28 in Fairfax, the Coalfields Expressway, Jamestown 2007 (Routes 199 and 31), and Route 58.

Five other PPTA projects are under active consideration, with the Dulles Rail Extension in the negotiation stage. Two of these projects – I-81 and the I-495 HOT Lanes – have been recommended by PPTA Advisory Panels for advancement to the negotiation stage. The final two active projects, the I-95 HOT Lane Proposal and the Third Crossing of

² See §56-556 et. seq. Code of Virginia.

Hampton Roads, are still being considered by PPTA Advisory Committees. VDOT also has issued two requests for information to gauge interest in submitting a PPTA proposal for the Western Transportation Corridor in Loudoun, Prince William, and Stafford Counties and the Midtown Tunnel between Portsmouth and Norfolk.

In addition, there have been at least two projects undertaken by local governments as the responsible public entity. The City of Williamsburg and Prince William County both have authorized local road projects under the PPTA. Other localities, such as Lynchburg and Loudoun, have adopted or are considering PPTA guidelines.

Currently, the PPTA law allows wide flexibility in its interpretation and implementation. Proposals may be solicited or unsolicited by the responsible public entity. The major steps involving evaluating, selecting, and implementing projects are intended to be the same for both solicited and unsolicited proposals. However, successive administrations have utilized different guidelines to implement the law. It also appears that there are informal, unpublished guidelines, such as *de facto* project size minimums, and lobbying rules. While the guidelines are intended to be consistent with public procurement laws, they are not subject to these laws, and have been ignored when deemed necessary.

Since most, if not all, future PPTA projects will require federal approval and/or funding, the National Environmental Policy Act of 1969 (NEPA) process will be a key factor in the ability of PPTA projects to move forward. At the same time, it appears that federal policy is becoming more open to public/private highway initiatives, even though the GAO recently concluded that “active private sector sponsorship and investment seems unlikely to stimulate significant increases in the funding available for highways and transit”.³ The PPTA funding history in Virginia seems to validate the GAO conclusion. That is, little private equity has been risked for PPTA projects. Rather, PPTA projects have been funded almost entirely with either traditional transportation funds, or municipal bond debt backed by tolls or other public tax sources supplemented with traditional state and federal transportation revenues.

In early October 2004, the Federal Highway Administration initiated Special Experimental Project-15 to encourage more state public-private initiatives. SEP-15 is designed to provide “substantial flexibility” in meeting federal requirements for public-private highway projects. For projects approved under SEP-15, FHWA would provide

³ “Highways and Transit – Private Sector Sponsorship of and Investment in Major Projects Has Been Limited”, GAO, March 2004, page 30.

flexibility in contracting, environmental compliance, right-of-way acquisition, and project finance, potentially before the NEPA process is concluded. It is also likely that the new federal highway bill that has been repeatedly delayed will include incentives for projects under SEP-15. If so, strong arguments will be made to get this federal funding for PPTA projects in Virginia.

It is clear that with less state funding available for transportation projects, but potentially more federal funding and/or a lessening of federal prohibitions against the use of tolls to improve interstate highways, the landscape is shifting to increase the likelihood and significance of mega-projects funded under the PPTA. Given this new environment, it is important to explore the benefits and weaknesses of the current PPTA law to determine whether it is prudently being used and whether changes or improvements are necessary.

PPTA History and Process

In 1988, Virginia adopted the Highway Corporation Act, which was the Commonwealth's first attempt to authorize private sector participation in the submission of transportation proposals. The Dulles Greenway was built under the authority of this act.

In 1993, the General Assembly adopted Senate Joint Resolution No. 241 establishing the Joint Subcommittee Studying Privatization of Certain State Government Functions. The 1994 General Assembly continued the study with Senate Joint Resolution No. 17. In 1994, the General Assembly passed the Qualifying Transportation Facilities Act. This Act was the pre-cursor to the 1995 PPTA. The 1995 PPTA was a recommendation of the Joint Subcommittee to modify the 1994 Act. In 2002, the PPTA was amended to conform with changes made to public procurement laws.

The PPTA authorizes private entities to acquire, construct, improve, or operate qualifying facilities, as long as the "responsible public entity" approves. The responsible public entity is defined as "a public entity that has the power to acquire, construct, improve, maintain and/or operate the applicable transportation facility." The responsible public entity for state projects is the Department of Transportation for highways and the Department of Rail and Public Transportation for rail and transit projects. The responsible public entity may also be a local government. This was the major change from the Highway Corporation Act of 1988 where the State Corporation Commission was the responsible regulatory body, but had little expertise in highway matters.

The PPTA also requires the private entity's proposal to be compatible with state and local transportation plans (§56-558A.1 and §56-560.C.2). Affected local governments must be notified for comment on compatibility with local comprehensive plans. The law states that the operator's financing must be reasonable and construction must be timely. If a state agency is the responsible public entity, the Secretary of Transportation must approve a comprehensive agreement before it is signed (§56-573.1.2). The PPTA statute ignores the CTB's central role in transportation policy by giving it no direct statutory authority in the process even though the Commonwealth Transportation Board is responsible by statute in §33.1-12 Code of Virginia for "let[ting] all contracts for the construction, maintenance, and improvement of the roads comprising systems of state highways and for all activities related to passenger and freight rail and public transportation in excess of \$2 million." While the PPTA requirement for state and local

transportation plan compatibility would seem to *de facto* include the CTB in the PPTA process, the PPTA process has been initiated before proposals have been included in the six-year transportation improvement plan the CTB approves.

An important determinant of how the PPTA operates in practice is the use of Implementation Guidelines. While these procedural guidelines do not have the force of law, they form the basis of the process used to implement the PPTA. The guidelines were last updated in April 2001 by the VDOT Commissioner, and are currently in the process of being re-written. It is unclear when the new guidelines will be available or what changes to the existing guidelines are being contemplated or already being used.

Proposers are currently required under the guidelines to follow a two-part submission process: a conceptual proposal, and a more detailed proposal. The conceptual proposal contains information on the project characteristics and financing, public support, and proposer qualifications. After a 45-day period for submission of competing proposals, the conceptual proposals are forwarded to the Initial Review Committee, composed of VDOT staff (in the case of VDOT being the responsible public entity). VDOT (or DRPT) determines at its sole discretion whether to forward the proposals to the CTB. If approved by the CTB, a PPTA Advisory panel is formed and the proposers are asked to submit detailed proposals for evaluation. After reviewing the findings from the IRC, and comments from affected local governments, the Advisory Panel will make a recommendation to the Commonwealth Transportation Commissioner (or DRPT Executive Director in the case of a transit project). If the Advisory Panel recommends proceeding, the VDOT Commissioner or DRPT Director may enter into negotiations for a comprehensive agreement or reject the proposal. The Secretary of Transportation has to approve any Comprehensive Agreement before it is signed.

Highlights of Current PPTA Guidelines

- **Initial Review** - The Initial Review Committee comprised of VDOT or DRPT staff evaluates the proposer's qualifications as well as the technical and financial feasibility. Should the conceptual proposal merit further review, the committee will then recommend to the VDOT Commissioner or DRPT Director that the process move forward.

- **CTB Action** – If the Commissioner or Director concurs, the Commonwealth Transportation Board (CTB) is asked to move the PPTA proposal to the next stage of review. The Board will review the conceptual proposal and approve or disapprove it for further detailed evaluation.
- **Further review** - Should the CTB concur with the Commissioner's recommendation, VDOT will ask the proposer for a detailed proposal, which will be submitted to a PPTA Advisory Panel and forwarded to affected local jurisdictions. Localities have sixty days to provide public comment. No comment is currently interpreted as a negative response. The Advisory Panel will evaluate the proposal and make a recommendation to the Commissioner. The Advisory Panel, currently chaired by the Deputy Secretary of Transportation, is comprised of transportation officials from VDOT, the CTB and a representative from the academic community. Current policy is to include all CTB members from the affected region and an at-large member.
- **Negotiations/comprehensive agreement** – If the Advisory Panel recommends proceeding, the VDOT Commissioner or DRPT Director may enter into negotiations for a comprehensive agreement or reject the proposal. Under §56-573.1 Code of Virginia, the Secretary of Transportation shall approve any Comprehensive Agreement before it is signed.

The NEPA Process

The National Environmental Policy Act of 1969 (NEPA) established a national environmental policy focused on federal activities. NEPA requires federal agencies to consider the potential environmental consequences of federal actions significantly affecting environmental quality, document this analysis, and involve the public at various steps in the review process. The environmental protection policy established in Section 101 of NEPA is supported by a set of "action forcing" provisions in Section 102 that form the basic framework for federal decision-making and the NEPA process.

The NEPA process applies to all projects impacting the national highway system or using federal funding. Most, if not all, major transportation projects in Virginia require federal approval and funding to complete. Therefore, NEPA, while a wholly separate process from the PPTA, should be an important part of the decision-making process for PPTA projects.

While FHWA is responsible for implementing the NEPA process, it allows VDOT to conduct the actual review of most Virginia projects. VDOT in turn usually contracts with a private firm to conduct much of the NEPA analysis of alternatives. The Commonwealth Transportation Board makes the final recommendation of any preferred alternative. FHWA must sign off and approve each stage of the NEPA process. FHWA states that it is committed to the examination and avoidance of potential impacts to the social and natural environment when considering approval of proposed transportation projects.⁴ In addition to evaluating the potential environmental effects of a proposal, FHWA takes into account the transportation needs of the public in reaching a decision.

FHWA's NEPA policy in (23 CFR § 105) requires that:

- To the fullest extent possible, all environmental investigations, reviews, and consultations are coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental document required by this regulation.
- Alternative courses of action be evaluated and decisions be made in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation; of the social, economic, and environmental impacts

⁴ See www.environment.fhwa.dot.gov

- of the proposed transportation improvement; and of national, state, and local environmental protection goals.
- Public involvement and a systematic interdisciplinary approach are essential parts of the development process for proposed actions.
 - Measures necessary to mitigate adverse impacts are incorporated into the action.

The principles or essential elements of NEPA decision-making include:

- Assessment of the social, economic, and environmental impacts of a proposed action or project
- Analysis of a range of reasonable alternatives to the proposed project, based on the applicant's defined purpose and need for the project
- Consideration of appropriate impact mitigation: avoidance, minimization and compensation
- Interagency participation: coordination and consultation
- Public involvement including opportunities to participate and comment
- Documentation and disclosure.

Discussion of Selected PPTA Projects

Pocahontas Parkway

The Pocahontas Parkway (Route 895) was the first project completed under the PPTA. Pocahontas is a nine-mile, four-lane toll road extending from the eastern end of State Route 150 to I-295 southeast of Richmond International Airport. In 1983, the CTB approved the corridor. The final Environmental Impact Statement (EIS) was approved for the selected corridor in 1984. In 1994, the original EIS was re-evaluated and approved by the Federal Highway Administration. In 1994, both Chesterfield and Henrico Counties selected Route 895 as one of their priorities. In 1996, the Henrico County Industrial Development Authority declined to finance the project.

In November 1995, Morrison Knudsen and Fluor Daniel (FD/MK) submitted an unsolicited proposal to VDOT to build Route 895. No competing proposals were received. The CTB approved the conceptual proposal and invited the submission of a detailed proposal to the PPTA Advisory Panel. The Advisory Panel recommended the project be negotiated with the VDOT Commissioner. A Comprehensive Agreement was reached in June 1998 for a design-build contract. Route 895 was completed in September 2002 and cost \$10 million less than the original \$324 million contract price. The majority of the risk for the project was on the private developer FD/MK. The contract the parties came up with was a lump sum design/build contract that made FD/MK the prime contractor responsible for completing the project for a fixed price and delivering a completed project by a specific date.

Public funds were also committed to the project. Approximately \$9.8 million in state funds had been used for project design work and preliminary engineering. This work was transferred to the PPTA builders. An additional \$18 million State Infrastructure Bank (SIB) loan was made to the builders for preliminary engineering, utility, and right-of-way costs. Repayment of this state loan is subordinate to the First Tier bonds. While the Pocahontas Parkway Association is technically responsible for operating and maintaining the road, VDOT is currently paying for these costs until sufficient toll revenue is available to cover these expenses. In the meantime, VDOT is collecting IOUs from the operator.

The construction financing plan relied exclusively on the selling of bonds and the collection of tolls to repay the bonds. The Pocahontas Parkway Association was created in 1997 to issue the bonds through an IRS “63-20” ruling non-profit corporation. This IRS ruling was the key to reducing the cost of capital by allowing use of municipal bonds with tax-free interest rate subsidies. In addition, this ruling allowed an industrial development-type nonprofit entity to be created without incurring any legal liability on the part of the state or localities. Similar proposed PPTA toll projects (e.g., I-95 HOT lane proposal, Hampton Roads Third Crossing proposal) envision using this form of entity as well.

In 1998, \$354 million in revenue bonds were issued for the project. These bonds are not a debt of the Commonwealth, which has no legal obligation for these bonds whatsoever. Whether a “moral” obligation exists on the part of the state or localities’ remains to be seen in the event of the Association’s inability to pay interest or principal to the bondholders. That is, it is not clear whether the state or localities would soften the blow to bondholders in the event of a default to maintain the appearance of the state’s overall financial creditworthiness.

FD/MK also had two contract items that they were obligated to pay if required. The first was liquidated damages in the amount of \$25,000 per day if they were late in delivering the completed facility, capped at a maximum of \$25,000,000. The second item was a \$5,000,000 loan FD/MK would make to the Pocahontas Parkway Association if the toll revenue could not cover the debt service.

Wilbur Smith Associates conducted the traffic and revenue forecasts for the road. These forecasts relied heavily on motorist surveys, and county growth projections.⁵ In fact, actual traffic and toll revenue was only about 42 percent of the projections contained in the 1998 bond document for the first full year of operation - 2003. About 4.1 million transactions have occurred through the first 9 months of operation in 2004. Extrapolating these transaction trends for the full year 2004 amounts to less than \$9 million in revenue versus the original forecast of \$17.7 million for a \$1.50 toll and \$19.6 million for a \$2.00 toll in 2004. As will be discussed later, “optimism bias” is a consistent trait found in toll road projections. The current concern is whether there will be enough toll revenue to make the \$9.5 million August 2005 interest payment. If not, the Parkway Association will have to begin using their \$40 million set-aside reserve. It also is not likely that either the \$18 million state loan or the state outlays for maintenance will be repaid

⁵ Official Statement of the Pocahontas Parkway Toll Road Revenue Bonds, June 24, 1998.

anytime soon. The Pocahontas Parkway bonds have been downgraded by the Moody's rating agency to junk bond status.

Pocahontas Parkway			
2003 Estimated Versus Actual Transactions and Revenue			
	Official Statement		
	<u>Estimate</u>	<u>Actual</u>	<u>% of Estimate</u>
Transactions	10,074,000	4,407,794	43.8%
Revenue	\$15,458,000	\$6,529,377	42.2%

Route 288

The Route 288 project is approximately 17.5 miles, cost about \$319 million, and was built in three phases between the Powhite Parkway Extension (Route 76) in Chesterfield County and Interstate 64 in Goochland County. One VDOT-managed segment of Route 288 stretches from Route 76 to Charter Colony Parkway in Chesterfield County and the other VDOT-managed segment stretches from Charter Colony Parkway to the Powhatan County line. APAC-Virginia, Inc. constructed the rest of Route 288, from the Powhatan County line to I-64 in Goochland County. It is this third \$236 million segment that is funded under the PPTA. The road opened its entire length in mid-November, 2004.

State funds were used for the entire project. The stated PPTA benefits of the project included a guaranteed price with a date certain for completion. APAC-Virginia, Inc. promised more efficient engineering and construction using a design-build approach. Significant savings on bridges were supposedly achieved by making topographical changes and using a standardized design, instead of using multiple-type bridge designs. APAC-Virginia, Inc. also agreed to pay liquidated damages of \$25,000 per day up to a maximum of \$5 million in the event of a missed completion date. When the completion date in the fall of 2003 was missed, damages of \$5 million were assessed by VDOT. However, APAC-Virginia, Inc. claimed that unusual rains beginning in 2003 caused the delay, also claimed an additional \$10 million in expenses, and threatened to sue VDOT. While the contract provided a damages waiver for unusual weather events, rain was not

included in the term “unusual”. In the end, both parties settled by waiving the VDOT late damages and APAC extra charges.

Current law allows Virginia to utilize design-build contracts, so it is not clear what advantage the PPTA process provided for Route 288. Other PPTA projects such as Route 58 and Jamestown 2007 are basically design-build as well. The Commonwealth Transportation Board “may annually award five design-build contracts valued no more than \$20 million. The Board may also award design-build contracts valued more than \$20 million, provided that no more than five of these latter contracts are in force at the same time.” (See §33.1-12.2 (b) Code of Virginia).

The PPTA process was likely used as a vehicle to speed the financing for building Route 288. An unusual amount of Richmond District primary road revenues were programmed to help build it. In fact, the current VDOT Six-Year Improvement Program has a balance of \$90 million remaining to be paid on Route 288 after the year 2010. Unless additional statewide revenues are allocated (such as the \$39 million in general funds being proposed in the 2005 introduced budget), it will take many more years to finish paying for Route 288 construction to the detriment of other projects in the district. In addition, language in the VTA 2000 transportation bill allowed the use of \$131 million in Federal Revenue Anticipation Notes (FRANS) to help finance the project. Since general funds and off-the-top Transportation Trust Fund revenues are now being used to pay off the FRANS, the rest of the state is effectively being charged one-third of the cost of Route 288.

Route 28 Interchanges

The Route 28 project in Northern Virginia is an example of a successful use of the PPTA according to Fairfax County officials. However, no private capital is being used to finance the project, and the project could have been built without use of the PPTA. Six interchanges are being built in four years and the project will be complete in 2006. The approximately \$200 million project is being funded with \$70 million from traditional state sources, plus \$130 million from local taxpayers using an expansion of the existing Route 28 property tax district (touted as an example of creative financing). In addition, the property tax district’s tax-exempt bonds are backed by the moral obligation of both Fairfax and Loudoun Counties. Local government backing of the bonds reduced the risk to bondholders and provided a lower interest rate. The Route 28 interchanges are being built under a design-build contract by a partnership of several large firms. The big

difference from a VDOT-managed project according to the contractors is that right-of-way acquisition can overlap with construction and utility relocation to speed up the project.

Ultimately, local comprehensive plans call for constructing four more interchanges, for a total of 10, and widening Route 28 from six to eight lanes.

Dulles Metro-Rail Extension

Initially, Raytheon Corporation made an unsolicited proposal to DRPT to build the Dulles Rail Extension. DRPT advertised the proposal under the guidelines and received another proposal from the Bechtel Corporation. Ultimately, Raytheon and Bechtel combined to form the Washington Group to advance the proposal. The Dulles rail extension project from the Vienna Metro station to Dulles Airport has been under active negotiation since early 2003 with the Washington Group for a design–build project. There was an effort to get at least a draft EIS decision from the Federal Transit Authority before proceeding to negotiate with the builder. The primary difficulty in negotiations has been that the state wants to use the PPTA to get a firm price and date for completing the project by using a private contractor, while the Washington Metropolitan Area Transit Authority (WMATA) – which operates the Metro system – believes that if it is going to inherit and operate the facility, it should make sure it is built correctly. The compromise appears to be that WMATA will have some oversight rights during construction.

The reason the PPTA was used for this project was to use private sector design-build strengths. The Advisory Panel was convinced by the proposers that they could build the project faster and somewhat cheaper than WMATA. While this is a PPTA project with no private equity contribution for construction, the proposers are accepting some risk by providing upfront planning and design work costs that would be forfeit in the event the project falls through. Construction is expected to be funded with 50% federal funds, 25% state funds (excess Dulles toll road revenues), and 25% local funds (16% Fairfax County property tax district, 4% Loudoun County funds possibly from Business License gross receipts (BPOL) taxes, and 5% Metropolitan Washington Airports Authority surcharges).

The advantages of using the PPTA process for the Dulles Rail Extension, as summarized by DRPT, are listed in the following table.

ADVANTAGES	DULLES PPTA	TRADITIONAL APPROACH
Competition: Competitive process ensures value for money	✓	✓
On Time: Preliminary Engineering contractor is directly accountable for successful construction completed on time	✓	
On Budget: Preliminary Engineering contractor is directly accountable for successful project construction completed on budget	✓	
Shared Risk: At-risk participation in project is established prior to contract award	✓	
Private Capital: Private, interest-free capital investment through deferred costs	✓	
Guarantees: Timely, cost efficient, and guaranteed completion of work	✓	✓
Shorter Procurement: Expedited procurement time between Preliminary Engineering and Design/Build	✓	

I-495 HOT Lanes

The Northern Virginia 2020 transportation plan adopted in 1989 included completion of an HOV network throughout the region as one of its major priorities. In 1999 the Northern Virginia Coordinating Council completed a major update of the 2020 plan and called for connectivity among the radial HOV improvements made over the preceding decade. In 2001 DRPT completed its Capital Beltway Corridor study reviewing rail alternatives for the capital beltway. This study found that rail transit cannot fully address Beltway capacity and safety issues. The study did call for better coordination of transit and land use planning. Since 1998, VDOT has conducted an environmental review of potential improvements to the I-495 corridor. The initial set of alternatives included: 1) a 10-lane, concurrent HOV proposal; 2) a 12-lane barrier separated HOV facility; 3) a 10-lane express/local configuration with HOV lanes; and a 4) no-build proposal. The three alternatives were rejected by the MPO because of the impacts on hundreds of homes and businesses. Essentially, I-495 remains in the middle of the NEPA process at this time.

In June of 2002, Fluor Daniel submitted an unsolicited, conceptual proposal to VDOT under the PPTA. Fluor Daniel proposed improving fourteen miles of I-495 from the American Legion Bridge to the Springfield interchange by adding four High Occupancy Toll (HOT) lanes (two in each direction) and making other related improvements. Essentially, a HOT lane is a modified HOV lane that allows single-occupant vehicles to use the lane by paying a toll (sometimes with a rate based on time-of-day). Fluor Daniel also proposed four optional elements, in addition to the base proposal: toll system operation and maintenance; long-term facility maintenance; additional direct ramp access points; and system expansion to the east, including the construction of Phase VIII of the Springfield interchange. In July of 2003, an Initial Review Committee composed of VDOT staff recommended that the Fluor Daniel proposal be advanced to a detailed stage of review. The Commonwealth Transportation Board concurred with that recommendation at its July 2003 meeting.

In October of 2003, Fluor Daniel submitted a detailed proposal for consideration by an Advisory Panel and the VDOT Commissioner. At this point, the Warner administration decided to open up the PPTA process to full public scrutiny. This decision illustrates the problem of using the PPTA process as an adjunct to the NEPA process. The NEPA process is designed to receive full public input on finding a recommended alternative. The Advisory Panel process is designed to review a detailed proposal to build a recommended alternative. Conducting this detailed PPTA review in full public sessions is very awkward before a NEPA record of decision has been reached. That is why so many unanswered issues were still outstanding when the Advisory Panel recommended in late June that VDOT enter into negotiations with Fluor Daniel for a Comprehensive Agreement for improvements to I-495 from the American Legion Bridge to the Springfield Interchange.

The Fluor Daniel proposal differed from the alternatives VDOT had been studying principally by reducing the lane and shoulder widths of the road and by tightening interchange radiuses. This reduced the amount of right-of-way needed and the resulting impact on homes and business. The Fluor Daniel proposal was touted as a creative engineering solution to the problem. VDOT staff argued that they could have designed the same proposal if they had been allowed to bend safety and road capacity concerns. VDOT has been criticized for its lack of flexibility in applying engineering designs regardless of the local situation.

Two of the twelve members of the Advisory Panel dissented from the recommendation to advance the Fluor Daniel proposal. In general, the dissenting Panel members believed more clarity was needed through the NEPA process, adequate funding issues needed to be resolved, and inclusion in the state's six-year plan for public funding was needed before soliciting PPTA proposals. Specifically, the chief concerns expressed by the dissenting Panel members included:

- Serious questions regarding the proposed financing of the plan, including:
 - At least \$91 million in unidentified public funds that will be required.
 - A base price of \$693 million that is probably low by at least \$200 million and is not guaranteed, and does not include both on-going maintenance and toll collection expenses.
 - Funding is not included for Phase VIII of the Springfield Interchange – which is critical to the success of the project.
 - Optimistic toll assumptions due to potentially higher than projected HOV users reducing capacity for toll paying users.
 - Concerns about non-compete clauses on potential improvements to other roads.
- A belief that more analysis is needed through the NEPA process about how a HOT lane network would work in Northern Virginia. Most drivers are local, and the impacts of getting on and off the Beltway are not fully understood.
- Unresolved safety issues involving bus transit in the HOT lanes. Issues involving ingress and egress of buses into the HOT lanes have not been solved.

However, the majority of the Advisory Panel felt that the financing and safety issues could be dealt with later and should not stop the project. It was noted privately by a member of the majority that the concurrent PPTA process and the NEPA process is very confusing to the public and local political bodies. It is not clear how the alternatives analysis of NEPA works in concert with the negotiation of a comprehensive agreement under PPTA. It was also noted that while state funding had been in the CTB six-year plan for I-495 improvements until state highway revenue forecasts collapsed in 2001, there was no funding in the six-year plan during the PPTA deliberations.

The Panel did provide a number of caveats to its recommendation by asking that the following actions be required before construction could begin:

- NEPA approval by the CTB and FHWA
- Investment-grade toll revenue study by Fluor Daniel
- Formal designation of I-495 HOT lanes by the CTB
- Revised value pricing agreement between VDOT and FHWA
- Inclusion in Constrained Long Range Plan and Conforming Air Quality Plan by the Metropolitan Washington Transportation Planning Board
- Comprehensive Agreement Between VDOT and Fluor Daniel
- Detailed Financial Plan Between VDOT and FHWA
- Design-Build Agreement Between VDOT and Fluor Daniel

The Advisory Panel recommendation also included significant concern with three major risk factors:

- 1) The project scope, and its attendant costs, may increase to address safety and congestion issues. For planning purposes the Panel assumed the estimated project cost is \$825 to \$850 million.
- 2) HOV and transit bus usage in the corridor may exceed projections, potentially filling the HOT lanes, reducing project revenues, and increasing the need for public sector financial support.
- 3) The average trip may be relatively short. The proposal assumes that about 50% of the Beltway trips would be one or two interchange segments in length. Predicting toll revenues under these conditions will pose a unique challenge for both the private and the public sectors.

Other risk factors the Advisory Panel noted were:

- Planning and design of the ultimate HOT lane facility must carefully integrate transportation and land use goals, particularly for the location, design, and operation of the intermediate access points, as well as the local highway network. Stakeholders and local technical staff must be involved in the process.

- Planning and design of any HOT lane facility must be compatible with the long-term plans of Maryland for the I-495 corridor, particularly for the northern terminus of the project as I-495 crosses the Potomac.
- The congestion pricing approach in the I-495 corridor must promote greater HOV and transit usage in the corridor and throughout the region. There has been a longstanding regional commitment to increased HOV and transit usage. The sketch level assessment performed by staff of the National Capital Region Transportation Planning Board cited the need to “remove the current disincentive to Fluor Daniel for serving non-paying users like HOV3+.”

Widening Interstate-81

The Interstate 81 Widening PPTA proposal has gone through much of the PPTA process while little of the NEPA process has been conducted yet. In early 2002, STAR Solutions submitted an unsolicited proposal to VDOT for improvements to the I-81 corridor. VDOT decided to return the proposal and in the interest of competition, solicited conceptual proposals for I-81 improvements. In January 2003, STAR and Fluor-Virginia submitted conceptual proposals that were reviewed by the VDOT Initial Review Committee. The IRC recommended both proposals be evaluated further. In March 2003, the VDOT Commissioner agreed with the IRC findings and the CTB formally asked for detailed proposals by both parties to be evaluated by a PPTA Advisory Panel.

In September 2003, both STAR and Fluor submitted detailed proposals for review by a PPTA Advisory Panel. The STAR proposal is essentially to rebuild I-81 to at least four lanes in each direction, including tolling in two dedicated heavy commercial truck-only lanes separated by spacing and rumble strips. The STAR project is estimated to cost about \$13.0 billion, including \$5.0 billion in capitalized interest. STAR is also proposing an optional rail improvement program of \$111 million and a 20-year pavement guarantee for an additional \$660 million. Truck tolls beginning in 2007 would start at \$0.123/mile and steadily increase to \$0.368/mile at project completion. The proposal relies on obtaining \$800 million in federal funds through 2009 and an additional \$800 million from 2010-2015. It also relies on the \$98 million currently allocated to I-81 improvements in the VDOT 6-year plan.

Fluor-Virginia proposed a minimum of one lane in each direction for passenger vehicle use only, plus ten truck-climbing lanes at critical points on the roadway as proposed in VDOT's *Conceptual Studies* report. The Fluor project is estimated to cost about \$7.0 billion, including \$1.1 billion in capitalized interest. Fluor is also proposing an optional rail improvement program for \$132 million and a 20-year pavement maintenance program for \$930 million. Fluor proposed initial toll rates beginning after phase 3 of the project is completed in 2012 for both cars (\$0.025/mile) and trucks (\$0.085/mile), and final toll rates of \$0.05/mile for cars and \$0.17/mile for trucks. No tolls would be charged for trips less than 10 miles, with discounted tolls for trips under 30 miles. No federal or state funding was proposed, including current VDOT 6-year plan funds.

The Advisory Panel met five times to review the detailed proposals, with one meeting devoted exclusively to public comment. Over 400 written comments were received, and about 74 citizens presented verbal testimony. At least 28 local governments provided comments as well. The single most frequent comment expressed a desire that rail improvements, including passenger rail, be given more consideration. The next most frequent comment was opposition to the use of tolls and concern with their effect on the region and its industries and local traffic. Diversion of traffic was also a widely expressed concern. Localities and individuals were also concerned with disturbing the scenic beauty and environment of the Shenandoah Valley.

In February 2004, the Advisory Panel recommended that the VDOT Commissioner enter into negotiations with STAR under several conditions. The Panel found that the STAR proposal "comes closer to meeting the long-term needs of the corridor, with a more diversified, achievable financing program." The Panel felt it necessary to build an 8-lane facility to meet long-term growth projections, subject to NEPA approval. A number of conditions were placed on negotiations with STAR, summarized as follows:

- A comprehensive agreement with STAR Solutions cannot be implemented if the outcome of the environmental review process does not support the proposal. If the comprehensive agreement cannot be implemented, STAR Solutions will bear the total cost of developing and negotiating the PPTA proposal.
- The comprehensive agreement is contingent on the project receiving \$800 million in the pending federal highway legislation.
- The comprehensive agreement should be based on a tolling framework that minimizes car and truck traffic diversion to other major roadways in Virginia and recognizes the potential impacts on existing and future economic activity in the corridor.

- The comprehensive agreement should incorporate a phased approach to construction that addresses the most serious congestion and safety problems first.

Two members of the PPTA Advisory Panel dissented from the STAR recommendation. The major reasons for their dissent were that:

- The proposal requires paving too much land and increases air pollution, jeopardizing the environment of the Shenandoah Valley.
- VDOT's own projections show climbing lanes and a third lane in congested areas are sufficient through 2035.
- Truck "flyovers" are unsightly.
- Steep tolls will adversely affect local trucking and industry and divert traffic to local roads.
- Rail investment will be crowded out.
- The plan does not adequately address the safety issues of car-truck separation.
- Uncertain financing.

Tolling I-81 will also cause a diversion of traffic to other roads. The I-81 PPTA Advisory Panel hired Reebie Associates to conduct a Toll Impact Analysis to quantify the potential truck diversion to other roadways that would result from various toll rates. Reebie found that there are several alternative interstate routings for many trucks if a toll increased the costs over the benefits of using I-81. At a toll of \$0.15 cents per mile, Reebie estimated the percentage of loads diverted to other roads to be 20-30%. Major diversions would occur to I-95 and I-85, and local roads such as US 29. Other states, such as Tennessee, are also concerned about diversions to their interstate highways and other roads. Reebie also found that a disproportionate share of toll revenue would be borne by short and medium haulers originating and terminating in Virginia.

As previously indicated, many of the affected local governments and citizens would like to see a greater emphasis placed on rail line improvements in the corridor. Norfolk Southern also believes that rail line capacity could be increased faster and cheaper than highways, eliminating or delaying some of the improvements needed to I-81.⁶ It is generally agreed that economies of truck to rail diversion require trips of 500-750 miles due to loading/unloading and pick-up costs. It has been found that long-haul lines that permit frequent trains, such as Los Angeles to Chicago (BNSF), have reported intermodal truck capture rates as high as 80%. Norfolk Southern has estimated that with substantial

⁶“ I-81 Intermodal Pilot Program”, Norfolk-Southern Presentation to DOT Commissioner Shucet and staff, June 10, 2004

infrastructure improvements and rolling stock increases, rail could capture over 30 percent of the intermodal truck traffic on I-81.

Instituting passenger rail service between Bristol and both Richmond and Washington also has the potential to divert vehicle trips from I-81. According to a study by the Department of Rail and Public Transportation, Trans Dominion rail service has the potential for 782,000 passengers per year by 2020. Approximately 80 percent of the ridership would have traveled on I-81 south of Roanoke, while 40 percent would have traveled north of Roanoke on I-81 according to the study. Based on this data, up to 2 percent of vehicle trips could be diverted from I-81 by passenger rail service to Bristol.

Shifting vehicle traffic to freight and passenger rail has the potential to considerably reduce the scope and cost of improvements needed for I-81, as well as to reduce diversion of trucks to other routes from steep tolls. Senate Document 30 in 2001 concluded regarding the shifting of highway traffic to rail in the I-81 corridor that: “In addition to the delay of I-81 capacity improvements, there are also incremental benefits relating to decreases in highway user costs, safety costs, pavement maintenance expenses, and air quality considerations.”⁷

Ideally, rail improvements need to be made in states both to the north and south of Virginia for maximum effectiveness. However, Virginia has the major railway bottlenecks. A \$500 million investment in re-instituting double tracking on the Norfolk Southern Piedmont line and new siding north of Manassas is estimated by DRPT to remove 1,500 trucks per day from I-81. This is equivalent to removing 6,000-9,000 cars per day from the roadway. Norfolk Southern has proposed an initial I-81 rail improvement pilot project utilizing a public-private investment approach costing about \$570 million in infrastructure (\$300 million in Virginia) that could initially divert 10-12 percent of trucks and over 30 percent long-term with additional incremental investment. One transportation consultant has estimated that a PPTA project for rail improvements makes sense economically using a 40 percent public investment and 60 percent private investment ratio.

Without rail line improvements, truck traffic could make even an 8-lane I-81 obsolete within 30 years. Truck traffic growth projections appear to be the primary reason the PPTA Advisory Panel rejected the Fluor-Virginia additional one-lane proposal in favor of the STAR two-lane proposal. Unfortunately, FHWA has ruled that rail line

⁷ “The Potential for Shifting Virginia’s Highway Traffic to Railroads”, VA Senate Document 30, 2001.

improvements cannot be paid for with interstate highway tolls. Therefore, Virginia needs a dedicated source of revenue for rail line improvements to the I-81 and I-95 corridors and east-west rail corridors.

Western Transportation Corridor

VDOT is now essentially using the PPTA as a mechanism to solicit ideas on what alternative projects might be built. On November 1, 2004 VDOT issued a request for “Statements of Interest” from private entities to determine whether to formally solicit proposals under the PPTA to build the Western Transportation Corridor (WTC) from Loudoun to Stafford. The PPTA would be used to determine if a toll road or some other financing scheme is a possible alternative.

VDOT completed a Major Investment Study of the WTC in 1997 that recommended a Location Study and Environmental Impact Statement be prepared. This MIS generated significant controversy due to the WTC’s costs, impacts on communities, the environment, historic resources, and the additional suburban sprawl and traffic it would generate. There have been several efforts to stop the project. 1998 budget language was adopted by the General Assembly to prohibit funding for the WTC NEPA process until a second MIS was completed in conjunction with numerous affected federal agencies. After the budget language expired June 30, 2000, a NEPA process on the WTC was initiated when the CTB approved a three-year, \$11.2 million study to prepare an Environmental Impact Statement. This study was terminated prior to its completion in 2003, and the CTB removed funding for planning the roadway from the 2003 six-year plan it adopted that year. There were no alternatives identified or approvals received as a result of the terminated study. While the WTC was part of the 2003 Metropolitan Washington Area Constrained Long-Range Plan as a study only, the 2004 CLRP update does not include the WTC in any form. The WTC was removed from the Fredericksburg Area Metropolitan Planning Organization’s 2003 CLRP.

VDOT’s current Six-Year Improvement program does allocate \$50,000 in regular primary state funds for possible PPTA project development and management activities on the WTC. Interestingly, several sources have indicated that the corridor identified by the mid-1990’s MIS is probably no longer viable given the residential and business development that has occurred in the corridor in recent years.

PPTA Issues and Recommendations

The evolution and increasing use of the PPTA raises a number of significant policy issues that should be addressed. The following section is a discussion of these issues and potential recommendations for improving the PPTA process in Virginia.

Undermining the NEPA Alternatives Process

Perhaps the most significant issue with the PPTA is how it has moved from a process of determining the best financing and build alternatives for a consensus-driven project (e.g. Route 28 Interchanges), to a process that is advancing one alternative into the transportation decision-making process before a recommended transportation solution has been achieved through NEPA or some other process (e.g. I-81 Widening). This has been a fairly rapid evolutionary change in the use of the PPTA. The argument for this change is that the private sector is better suited to identify viable transportation alternatives. However, this begs the question of whether a PPTA identified alternative can be fairly evaluated against other alternatives in the NEPA or other consensus-driven process. For example, intermodal rail solutions might be a better alternative use for limited state dollars in the I-81 and I-95 corridors, but might not be given a fair consideration with the PPTA alternative biasing the NEPA process.

The ideal decision process is one we already theoretically have. State and local governments build consensus for the need for a project. The NEPA process identifies viable alternatives. The Commonwealth Transportation Board deliberates on the alternatives, makes a recommendation to FHWA, and includes project planning funds in its six-year improvement program. The public is able to participate in both the NEPA and the six-year planning process. Once the CTB has included project planning funds in its six-year program, the PPTA could then be used to find the best financing and construction alternatives.

In today's environment, unsolicited proposals are being proposed in some cases to VDOT before consensus for a project has been achieved or the NEPA process even started. That is probably why the current administration has opened up the PPTA process to full public scrutiny – because the PPTA process has become a *de facto* adjunct to the NEPA process. However, it is not clear whether an Advisory Panel comprised of both staff and appointed officials is well-suited to a *policymaking* role, and conducting its work under the direct

scrutiny of the press and elected officials. One Advisory Panel staff member in the I-495 process complained that it was very difficult to question assumptions or offer opposing views from the Panel with cameras and elected officials observing. Public input is vital to transportation policymaking, but only with the correct process in place.

The PPTA process never originally envisioned signing a comprehensive agreement with an operator before knowing what the project was that was to be negotiated. Currently the I-81 and the I-495 PPTA projects have both been recommended by the Advisory Panel to proceed with negotiations for a comprehensive agreement before the NEPA process has concluded. No preferred alternative has been developed yet for either project, and the Commonwealth Transportation Board has not recommended a preferred alternative to the Federal Highway Administration.

The unanswered question is whether negotiating a PPTA comprehensive agreement concurrent with or before identifying a recommended NEPA alternative prejudices the recommendation process. The move to an open PPTA evaluation process, while in some ways laudable, appears to confirm that the PPTA is undermining the role of the NEPA process in selecting the preferred alternative.

At a minimum, more clarity is necessary in the PPTA statute for considering a PPTA proposal before the NEPA process has concluded. Statutory changes may also be desired to prevent the signing of a comprehensive agreement before the CTB has approved a recommended NEPA alternative. Another option would be to provide more clarity in the statute or guidelines concerning what is negotiated with a PPTA proposer before a NEPA recommendation is made by the CTB.

Commonwealth Transportation Board Role

A related issue to PPTA negotiations occurring concurrent with or even before a NEPA analysis is whether transportation policy-making authority is being concentrated in the hands of the “responsible public entity” that has authority to enter into agreements — and by extension into the hands of the PPTA proposer. With PPTA projects becoming larger and proposals more generic, a major issue is who is now driving and deciding transportation policy in Virginia.

Section 33.1-12 of the Code of Virginia defines the general powers and duties of the Commonwealth Transportation Board. The CTB is generally responsible for the location, decision-making and financing of transportation projects in Virginia. However, in the PPTA, the CTB has a very limited role in deciding whether a PPTA project is approved. The statutory PPTA law requires no CTB approval for a project. The current guidelines for the PPTA process only give the CTB a limited role in advancing a conceptual proposal to the detailed review stage by the Advisory Panel appointed by the VDOT Commissioner. While CTB members from the affected area and one at-large CTB member are usually appointed to this Panel, this is a discretionary practice and is not an official function of the entire CTB. While the PPTA statute requires projects to be “compatible with state and local transportation plans”, in practice the CTB uses most of its time in evaluating and approving projects for VDOT’s six-year transportation improvement plan. There really is no functioning “state transportation plan” other than the VDOT six-year plan. For example, there is currently no comparable state six-year transit plan, although attempts are being made to develop one. Therefore, increasing multi-modal transportation priorities and policies are bypassed by lack of CTB involvement in the PPTA process. Also, PPTA projects may have little or no relation to the state’s six-year plans, since it is a financially constrained plan.

More and more projects are being advanced through the PPTA process because of a lack of state funding for transportation construction. The state’s primary decision-making body for transportation policy is concerning itself with the smaller and smaller projects competing for remaining state funds, while the PPTA projects are usurping a larger role in transportation policy, with only unofficial CTB approval.

In contrast, the statutes and guidelines give an inordinate amount of decision-making authority to VDOT and its Commissioner. The Phase One Initial Review Process for a PPTA proposal is chaired by the VDOT Assistant Commissioners of Finance, and Operations, and the Chief Engineer. While the guidelines currently state that any conceptual proposal with the potential to satisfy the PPTA will be approved by the CTB before Phase Two consideration, one of the proposals to extend the Powhite Parkway in the Richmond area was returned by the VDOT Commissioner even though it seemed to meet PPTA guidelines. The CTB had little role in deciding the conceptual proposal’s fate.

The Western Transportation Corridor concept is another example of a transportation policy decision that more appropriately belongs with the CTB than with the VDOT

Commissioner. VDOT is not the best place to consider multi-modal alternatives or land-use decisions. In fact, a decision was made in the mid-1990's that the CTB should be chaired by the Secretary of Transportation instead of the VDOT Commissioner in order to better separate staff from policy decisions, and to better consider multi-modal transportation options with the Department of Rail and Public Transportation.

The Commonwealth Transportation Board should be given a more direct statutory role in the PPTA process, especially as the PPTA's role as a policymaking process increases with both the state and federal government. This could be accomplished by statutorily requiring CTB approval of any Advisory Panel recommendation for negotiating a comprehensive agreement. Another option would be to require a CTB NEPA recommendation before allowing a PPTA comprehensive agreement to be signed. Finally, the PPTA statute and/or its guidelines for implementation should require that a multi-modal representative be included on the Advisory Panel to ensure that all project alternatives are considered.

Financing and Assumption of Risk by the Proposer

A primary purpose of the PPTA is to attract and leverage private capital for transportation projects. However, as Virginia's experience and the 2004 GAO report reveals on a national level, significant private sector investment is unlikely. Active or completed PPTA projects rely heavily on tolls, taxes, or public sector financing. All of these funding sources could have been tapped without the PPTA. The only project to use significant private sector investment was the Dulles Greenway, built under the Highway Corporation Act of 1988. Very little private sector equity has been put into PPTA projects.

Another selling feature of the PPTA has been the assumption of risk by the proposer. However, other than the costs of preparing a proposal, upfront planning costs, and potential liquidated damages in the event of not meeting deadlines, the trend appears to be a reduction of risk by proposers as the PPTA process has evolved. The cost of preparing proposals is being offset by the potential benefits of larger projects. PPTA projects have even used VDOT powers to get around paying for utility relocation costs. Date certain guarantees and liquidated damages appear to have large loopholes (as was evident with the inability to collect penalties for failure to complete Route 288 on time).

Several proposals, such as those involving I-81 and I-495, have non-compete clauses for improvements on other roads to further lessen risk to the proposer.

Increasing the assumption of risk by a proposer would increase the realism of assumptions built into a project and decrease the optimism bias inherent in toll-financed PPTA projects. For example, it would probably improve the accuracy of vehicle traffic and diversion estimates and other estimated impacts as a result of a project. One criticism of the I-495 HOT lane proposal, for example, is its estimate of the number of HOV users in the HOT lanes and their impact on reducing toll revenues.

An example of the type of change that would increase the assumption of risk to proposers would be to adopt a requirement that the proposer invest a certain amount of equity in a project or buy a certain percentage of the bonds floated for a toll road project. Another option would be to require proposers to pay for independent verification of traffic and cost estimates. An analysis of several Advisory Panel recommendations and dissenting opinions point to the need for more accurate disclosure of full project costs, including public costs, and potential liabilities to taxpayers, including maintenance costs.

Design-Build Issues and Leapfrogging Other Projects

A number of projects conducted under the PPTA -- including Route 288, Route 58, and the Jamestown project -- have been funded almost entirely with traditional state dollars. The only real difference between these projects and normal state transportation projects was the use of a design-build contract and a negotiated date certain for completion with the provision for imposing damages in the event of a late opening. As discussed earlier, the Route 288 project has undercut the perceived benefit of negotiating a date certain completion provision with liquidated damages in the event of a late opening. Moreover, as mentioned in the discussion of Route 288, state policies are already in place for use of design-build projects. While most if not all public-private projects in the country have used design-build, and the FHWA allows its use in federal projects⁸, historically states have often not allowed or have put severe restrictions on the use of design-build for two reasons: 1) small local contractors and designers are put at a extreme disadvantage in getting work; and 2) it is feared that reduced competition will increase prices. While it is

⁸ "Highways and Transit – Private Sector Sponsorship of and Investment in Major Projects Has Been Limited", GAO, March 2004.

not clear what effect the PPTA has had on prices, it is already evident that smaller contractors have to subordinate themselves to the large firms in order to get work.

It is not clear why the state needed to use the PPTA for these design-build projects, except to enable them to leap over other projects in the normal prioritization process. It appears that the real incentive for using the PPTA is often to jumpstart transportation projects outside the normal approval and financing process of the six-year transportation plan, and/or bypassing the use of VDOT design and construction management. For example, it is unclear whether the \$18 million in state funds used to help pay for the Pocahontas Parkway would have been approved under normal CTB prioritization processes. Route 288 is even costing off-the-top statewide transportation revenues to be used to help pay back the FRANS used to finance the project. The Coalfields Expressway engineering work had a difficult time getting funding without the PPTA process because of the lack of an identified revenue source to actually build the road.

Competition and Non-Compete Clauses

An issue that needs more discussion at a policymaking level is the potential reduction of competition by proposers of PPTA toll roads and design-build projects. One of the historical objections to design-build contracts has been the reduction of competition. The current administration has taken a number of opportunities to increase competition in the PPTA process, and every opportunity seems to be taken to procure competing PPTA bids. Every effort should be made to institutionalize competition in the PPTA process.

One area of concern with reduced competition is that PPTA toll road proposers often ask for regional non-compete clauses limiting improvements to other roads or to other transportation modes. They are worried that their toll road revenues might be negatively impacted from increasing capacity on competing roads or transit facilities. While understandable from the proposers' viewpoint, the ability of the state to improve its transportation infrastructure should not be compromised in any way. The General Assembly and CTB should provide clear guidance on the use of non-compete clauses in any PPTA comprehensive agreements.

Optimism Bias in Toll Road Projects

Optimism bias is a consistent trend in toll-road traffic forecasting. In a 1996 study of 14 toll roads across the U.S., J.P. Morgan found that only one toll road exceeded its revenue projection, while three missed the mark by up to 25 percent, and four by over 30 percent.⁹ In a 2002 study, Standard & Poors explored traffic forecast performance in their first year of operation of 32 toll-roads around the world.¹⁰ The findings confirmed the earlier Morgan study. The typical toll road in this study over-forecast first year revenue by 25 percent. The study also found that traffic and revenue forecasts conducted by banks tended to have half the error rate of forecasts made by other parties. This suggests that traffic and revenue forecasts produced by those with some credit risk tend to be more reliable.

Traffic and revenue projections in the Official Bond documents for the Pocahontas Parkway have underscored the optimism bias problem in Virginia. While Wilbur Smith had no stake in further work, optimism bias was prevalent in their traffic and market projections. The I-495 HOT Lane toll revenue projections have also been criticized by some for appearing too optimistic. VDOT staff and others felt the PPTA proposal did not accurately reflect the number of HOV users who would occupy the HOT lanes, crowding out single-occupant vehicle toll payors. Similar concerns exist over I-81 toll projections and the number of diversions that might take place onto other roads. Without a real reason to be conservative in estimating traffic, a consultant tends to err on the high side of traffic projections that benefit the PPTA proposer. This suggests that a larger stake in the risk of the toll road, confirmed by Standard & Poors with banks' forecasts, may be necessary to achieve more accurate forecasts. Another option would be to use independent verification of traffic and cost estimates by those with the most risk – for example an I-81 consultant approved by rail or trucking companies.

Uneven Application of Guidelines

Wide variation in the application of PPTA guidelines over the last ten years demonstrates that the process is dependent on the current governing administration. Clear changes have occurred in how the current administration implements the PPTA process compared to how the previous administration implemented the process. The current administration

⁹ “Examining Tollroad Feasibility Studies”, JP Morgan, Municipal Finance Journal, Vol. 18, No. 1, 1997.

¹⁰ “Credit Implications of Traffic Risk in Start-up Toll Facilities”, Standard and Poors, Aug. 15, 2002.

uses a much more open process than the previous administration. Little is known about how Route 288, the Coalfields Expressway, and Route 58 were negotiated and approved.

The current administration is apparently updating the guidelines adopted in April 2001 to reflect current practice and thinking. In addition, the current administration is clearly looking to inject more competition into the conceptual proposal process. Some conceptual proposals, such as the I-95 HOT lanes, were posted longer than the guidelines called for (120 days). There has also been discussion concerning an informal floor for project size, at least partly due to the governmental expense of evaluating project proposals. Administration and transportation agency staff have complained about the inordinate time and effort it takes to evaluate PPTA proposals.

Another example of how the guidelines can interpret issues is that currently any non-response from localities during their 60-day comment period is considered as a negative response. Proposers believe this is backwards to common practice whereby a non-response in most venues is usually viewed as not finding a problem.

These are just some of the issues that illustrate the need to formalize more of the process by including it in the PPTA statute, rather than to rely on guidelines and interpretations that can be easily altered.

Adequate Public Input

While the current administration has opened up the PPTA process to more public access and scrutiny, there is no formal requirement in the statute or even the guidelines for an open process beyond soliciting comments from affected local jurisdictions to make sure the project is included in local comprehensive plans (§56-563). If the PPTA was being used for its original purpose (i.e., financing and building already vetted and approved projects), then requirements for public input would not be as critical. However, with the PPTA process evolving towards a policymaking tool for soliciting transportation ideas on a broader scale, public input becomes essential.

According to statute, a PPTA project must be a part of local comprehensive plans and/or state transportation plans (§56-560.C.2). However, in soliciting ideas for financing a Western Transportation Corridor, VDOT admits that the WTC is currently not in either

the Northern Virginia nor Fredericksburg local comprehensive plans.¹¹ The I-81 widening proposal from STAR also does not conform to current state or local transportation plans. This illustrates why formal public input and comment is necessary to shape public policy as now being practiced in the PPTA process. A formal public comment period should be instituted during Advisory Panel deliberations.

Incentives for Suburban Sprawl

In estimating traffic projections for the Pocahontas Parkway, Wilbur Smith stated that: “Significant emphasis was placed on evaluation of corridor growth potential.” Clearly, the Pocahontas Parkway only becomes viable if additional residential, commercial, and industrial development occurs within its service area so that toll revenues are sufficient to pay financing, operation, and maintenance costs. In other words, the project was premised on future growth. The viability of other financing methods, such as the Route 28 property tax district, are also dependent on growth and development. While development is not always a negative outcome for transportation projects, Virginia’s transportation policies have a clear cause and effect relationship on suburban development decisions. The completion of Route 288, which is already sparking significant growth, is a prime example. Private sector interests in proposing transportation facilities need to be balanced with public interests in guiding growth and development within the state.

Transportation policy in Virginia has clearly been encouraging inefficient and environmentally harmful suburban growth farther and farther from our cities and towns. The PPTA should not be used as another tool to encourage suburban development with its greater auto and truck travel needs through the use of back-loaded toll financing schemes. Rather, the PPTA could play a positive role in bringing transportation projects to fruition and encouraging more sensible development patterns, after appropriate policymaking bodies carefully balance transportation priorities in Virginia with a careful consideration of land development impacts. For example, policymakers should first compare the benefits of using scarce state transportation dollars in a public-private partnership for rail improvements in the I-81 corridor and high-speed rail in the I-95 corridor before spending these dollars on increasing highway capacity to encourage more sprawling development that in turn causes more driving.

¹¹ <http://www.virginiadot.org/business/resources/rfi-wtc.pdf>

Appendix

States With Enabling Laws for Public-Private Partnerships

<u>State</u>	<u>Comments</u>
Alabama	Authorizes County Commissions to license toll bridges, tunnels, roads. 4 private tollroad/bridges operational.
Arizona	1990 law allows solicited/unsolicited proposals.6-7 proposals submitted. None approved by ADOT.
Colorado	Authorizes CDOT to enter into PPVs with private entities for new turnpikes and improvements to existing turnpikes.
Delaware	2003 law authorizes solicited/unsolicited proposals. DOT to draft rules in Spring of 2004. Delaware Transportation Auth. soliciting PPV to improve I-95.
Florida	Amended in 2004. Allows solicited/unsolicited proposals to FDOD. Project specific legislative approval not required. Allows public funds to be invested in PPVs.
Georgia	2003 law specifies PPV evaluation process; allows GDOT to accept solicited/ unsolicited proposals for PPVs.
Louisiana	Creates toll authority, enables PPVs. 2001 law allows 1 PPV pilot under \$5 mill. under DOT procurement rules.
Massachusetts	Authorizes Route 3 North Project as a PPV. Requires Secretary to make recommendation within 3 months of its completion on extending PPV to other large projects.
Minnesota	1993 law authorizes private BOT or public toll roads; gives final project approval to local govt 2003 law authorizes HOT lanes. I-394 HOT lanes awarded Nov. 2003.
Missouri	Allows special-purpose non-profit Transportation Corp. for PPVs, i.e.. Lake of the Ozarks Bridge.
Nevada	2003 law allows solicited/unsolicited proposals; prohibits toll bridges and toll roads.
New Jersey	Authorizes NJDOT to enter into PPVs for up to 7 demonstration projects. To have expired in FY 2002.
No. Carolina	Part of 2002 legislation creating Turnpike Authority; allows NCDOT to issue license for private toll pilot Public toll authority being organized in 2004.
Oregon	2003 law directs ODOT to create innovative Partnership Program. Allows solicited/unsolicited proposals. Rules adopted 8/04.

So. Carolina	Authorizes SCDOT to enter into PPVs. Two projects have been completed: The Greenville Southern Connector and the Conway Bypass.
Texas	2003 law amends several statutes to allow implementation of TransTexas Corridor Plan via solicited/unsolicited development proposals to TxDOT, the Texas Turnpike Authority, and Regional Mobility Authorities.
Utah	Legislation set groundwork for PPVs and directs UDOT to draft rules. Rules never adopted.
Virginia	1995 Public-Private Transportation Act allows solicited/unsolicited proposals. In 9/04 there was 1 completed project, 5 active projects, and 5 pending proposals.
Washington	1995 law authorizes WsDOT to solicit proposals for development of up to 6 PPV demonstration projects. To date only the Tacoma Narrows Bridge, has moved forward, as a design-build project
Wisconsin	Authorizes the DOT to enter into design-build-lease arrangements for transportation projects.

Source: PWFinancing, September 2004