

White Paper on Pilot Program for Design-Build-Finance Delivery Model

Purpose and Goal

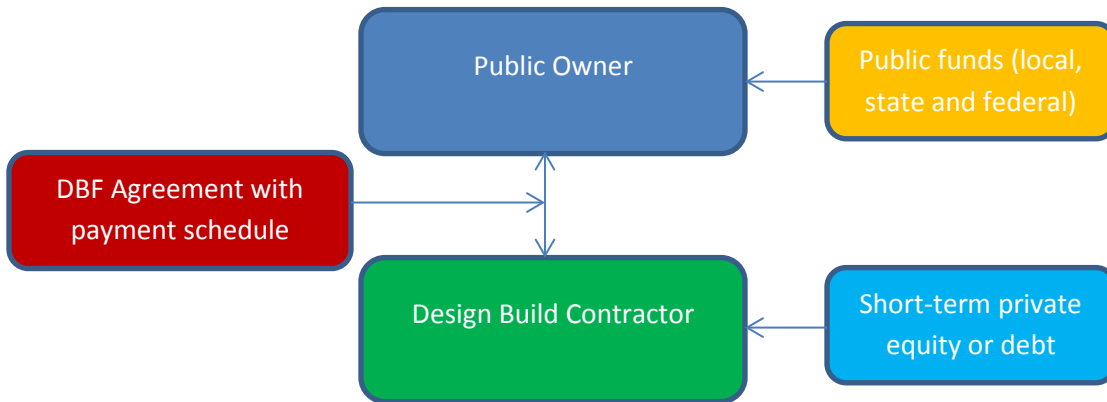
The purpose of this paper is to present a concept for the Commissioner of Highways and the Secretary of Transportation's consideration related to the implementation of a Pilot Program to advance the development of infrastructure projects utilizing a design-build-finance delivery model (DBF Model). The goal of the DBF Pilot Program is to allow a limited initiation of an innovative financing tool for project delivery of infrastructure and to learn from the experiences and best practices of the pilot program to potentially expand the program utilizing the DBF Model on other forms of infrastructure. The narrative includes a definition of the DBF Model, benefits/risks, implementation and business rules related to a proposed DBF Pilot Program and draft legislation that could be submitted for the General Assembly's consideration.

Definition of a DBF Model

The DBF Model has been implemented successfully in the transportation sector by public owners both nationally and internationally, with projects constructed in Ohio, North Carolina, Florida and California. DBF is very similar to the design-build model (DB Model) currently authorized by the Code of Virginia and utilized by the Virginia Department of Transportation (VDOT). As in the DB Model, the DBF model entails an agreement with a private sector contractor (Design Builder) to design and construct the project for a fixed price by a fixed date. The DBF Model goes further to provide for financing of project costs by the Design Builder. In the DBF Model, the public owner identifies the level of funding that it can provide and requires the Design Builder to finance project costs in excess of the public funding over a specified period of time. (See Figure 1). The DBF Agreement establishes a schedule for repayment of the project's costs to the Design-Builder in periodic payments during the term of the construction period and for some established term after construction (Term of the DBF Agreement). The Term of the DBF Agreement is usually no greater than 6 years from the project completion date, and in coordination with the development of VDOT's Six-Year Improvement Program (SYIP).

Responsibility for the ordinary and long-term maintenance and operation of the Project will remain with VDOT¹

Figure 1



Benefits of a DBF Model

The DBF Model provides VDOT with several advantages in the development and implementation of a transportation program. These include:

Advancing priority projects sooner: The DBF Model allows VDOT the efficiencies of the DB Model and the opportunity to expedite delivery of projects that would otherwise have to wait for public funding to become available in the out-years of VDOT’s SYIP. For example, if VDOT had funding identified for a project in its SYIP in years 5 and 6, then normally the project could not advance until those funds were available for payment to the Design Builder. Under the DBF Model, a project could be authorized for construction in year one, utilizing private sector funding to bridge the funding gap in the interim years and be paid off by VDOT in years 5 and 6 as planned and approved by the Commonwealth Transportation Board (Board) in the SYIP. The public benefits by gaining use of the transportation improvement sooner are aligned with the magnitude and

¹ Note that some transportation project delivery models also include the outsourcing of O & M to the private sector contractor, but that VDOT’s pilot program will not include this option at this time.

urgency of the project's objectives to improve safety, promote economic growth, increase short-term and long-term job growth or reduce congestion.

Reducing Project Capital and Life-Cycle Costs: The DBF Model has the potential of reducing the overall capital costs of a project by reducing project costs attributable to escalation of project construction costs and reducing operation and maintenance (O&M) costs related to the existing infrastructure.

For example: If a project, which had a 4 year construction schedule, was not planned to be procured for until 2020 under the current SYIP, the capital costs of that project would be escalated to year of expenditure (YOE) dollars (2022). At today's interest rates that could be a 10% to 12% cost reduction in YOE dollars. In addition, VDOT would retain the cost and risk related to operation and maintenance of the existing, older asset, which would continue to degrade during the interim period, and not gain the benefit of reduced O&M cost of a new facility.

It must be noted that the value gained on reductions to escalated project costs and O&M efficiencies has to be weighed against the projected cost of the DB Contractor's bridge financing. A financial feasibility analysis or value for money analysis should be initiated on each potential project to better define the added quantitative and qualitative values (see below).

Additional Risk Transfer: In addition to the risk transfer that is traditional with a DB Model (design and construction), the DBF Model transfers financing risks over to the private sector. The Design Builder will either self-finance or seek third party loans, bonds or other types of private debt to bridge the funding gap required to construct the project under a fixed-price, fixed-date DBF Agreement. If this is required, the Design Builder bears the financing risk, in particular, fluctuations in interest rates and other factors impacting the availability of funding, and is solely responsible for repayment of that debt. Note, however, financing cost will become a component of the total price for the project

Qualitative Values: In addition to the benefits noted above and as part of the value analysis that should be conducted on each project, there are qualitative values that can be added to a financial analysis that will occur sooner and can better define the overall value of a project procured under the DBF Model. Some of those include:

- The value to the users in a more timely manner – quality of life, reduced congestion, travel time reliability
- The value of economic development opportunities
- The value of job creation opportunities
- The value and efficiency of utilizing newer technology
- The value of safety improvements

Increasing the quality of the work: VDOT’s Design-Build Program utilizes a Value-Added payment regime, which promotes quality by deferring 80% of the payment for a work package until VDOT determines the work package was completed in accordance with the DBF Agreement. Under the DBF Model and associated DBF Agreement, the DB Contractor would remain obligated to complete work packages in accordance with the Agreement requirements and maintain a high standard of quality. However, under the DBF Model, the relative amount due from VDOT to the Design Builder is greater, and may provide VDOT greater leverage if the Design Builder fails to perform in accordance with the DBF Agreement. Additionally, all warranties as required under VDOT’s existing specifications would remain the same, as the DB Model.

Risks and Mitigation Strategies of a DBF Model to VDOT/Commonwealth

1. Appropriations Risk: There is the risk that future appropriations to fulfill VDOT/Commonwealth obligations under the DBF Agreement will not be available when needed, but it must be noted that, the probability of this risk is minimal. However, should VDOT/Commonwealth default on a DBF Agreement due to the unavailability of public appropriations, then VDOT’s/Commonwealth’s overall credit rating could be negatively impacted.

2. Credit Rating Risk: In addition to the risk associated with nonpayment, credit rating agencies may also view the Commonwealth’s obligations under the DBF Agreements as debt affecting the Commonwealth’s credit rating notwithstanding timely payment to the Design-Builder. This may be mitigated by the short-term nature of the anticipated debt and the specific business rules related to the Pilot Program. This will need to be coordinated with the Department of Treasury.

3. Best Value Risks: The procurement process needs to be designed and implemented to obtain best value for VDOT and the Commonwealth. This is an issue in any procurement that is based on more than low bid. However, the

Commonwealth has developed, and continues to improve upon, a sophisticated approach to determine best value, in the context of its design-build and P3 Programs, which will help inform the development of guidelines appropriate to the DBF Model and associated projects.

4. Design-Build Risk: The allocation of design, construction and warranty risks under the DBF Model would be the same as VDOT and Design-Builder takes under a traditional DB Model.

Implementation of the DBF Pilot Program

Identification and Selection Process:

The Board, in coordination with the Office of Public Private Partnerships and VDOT, shall establish Guidelines or amend its existing Guidelines setting forth the criteria for the identification and selection of the projects to be administered under the DBF Pilot Program. The criteria shall focus on information related to the project's public need, technical and financial feasibility, stakeholder support, timely delivery and other criteria that the Board identifies as important to the selection of projects that bring value to the Commonwealth under the DBF Pilot Program. A financial feasibility analysis or value for money analysis will be initiated on each potential project to better define the added quantitative and qualitative values. Additionally, the Guidelines will develop a project delivery framework, identifying decision points, Board approvals and opportunities for public engagement, along with the submission of a Finding of Public Interest.

Draft Business Rules:

1. the Board shall have the authority to authorize the execution of DBF Agreements and payments from legally available funds allocated to the Board for such purposes;
2. DBF Agreements shall be awarded only after a written determination is made by the Agency Administrator, pursuant to objective criteria defined in the Guidelines that awarding a DBF Agreement will best serve the public interest;
3. all projects identified for the DBF Pilot Program, will have to meet HB2 Prioritization requirements;
4. the aggregate principal amount for all DBF Agreements executed under the DBF Pilot Program shall not exceed \$500M;
5. the aggregate principal amount may be increase to the extent that a project utilizing a DBF Model generates revenues, such as user fees, that are dedicated to payment of obligations under the DBF Agreement;

6. no payment obligation established under a DBF Agreement for a project in the DBF Pilot Program shall be for a term greater than 6 years from the completion of construction; and
7. payment obligations within DBF Agreements under this DBF Pilot Program shall not be deemed to constitute debt of the Commonwealth of Virginia or be perceived as a pledge of full faith and/or credit of the Commonwealth.

Draft Legislation:

A BILL to amend § 33.2-209 § 33.2-221 of the Code of Virginia, relating to the authority of the Commonwealth Transportation Board to authorize procurement of design-build-finance agreements or contracts for transportation projects and facilities under a DBF Pilot Program. Text changes are in Red and underlined.

Be it enacted by the General Assembly of Virginia:

§ 33.2-209. Construction and maintenance contracts and activities related to passenger and freight rail and public transportation.

A. The Board shall have the power and duty to let all contracts to be administered by the Department of Transportation or the Department of Rail and Public Transportation for the construction, maintenance, and improvement of the highways comprising systems of state highways and for all activities related to passenger and freight rail and public transportation in excess of \$5 million. The Commissioner of Highways has authority to let all Department of Transportation-administered contracts for highway construction, maintenance, and improvements up to \$5 million in value. The Director of the Department of Rail and Public Transportation has the authority to let contracts for passenger and freight rail and public transportation improvements up to \$5 million in value. The Commissioner of Highways is authorized to enter into agreements with localities, authorities, and transportation districts to administer projects and to allow those localities, authorities, and transportation districts to let contracts with no limit on contract value and without prior concurrence of the Commissioner of Highways or the Board for highway construction, maintenance, and improvements within their jurisdictions, in accordance with those provisions of this Code providing those localities, authorities, and transportation districts the ability to let such contracts. The Director of the Department of Rail and Public Transportation is authorized to enter into agreements with localities, authorities, and transportation districts to administer projects and to allow those localities, authorities, and transportation districts to let contracts with no limit on contract value and without prior concurrence of the Director of the Department of Rail and Public Transportation or the Board for passenger and freight rail and public transportation activities within their jurisdictions, in accordance with those provisions of this Code providing those localities, authorities, and transportation districts the ability to let such contracts. The Commissioner of Highways and the Director of the Department of Rail and Public Transportation shall report on their respective transportation contracting activities at least quarterly to the Board.

B. The Board may award contracts for the construction of transportation projects on a design-build basis. These contracts may be awarded after a written determination is made by the Commissioner of Highways or the Director of the Department of Rail and Public Transportation,

pursuant to objective criteria previously adopted by the Board regarding the use of design-build, that delivery of the projects must be expedited and that it is not in the public interest to comply with the design and construction contracting procedures normally followed. Such objective criteria shall include requirements for prequalification of contractors and competitive bidding processes. These contracts shall be of such size and scope to encourage maximum competition and participation by agency prequalified and otherwise qualified contractors. Such determination shall be retained for public inspection in the official records of the Department of Transportation or the Department of Rail and Public Transportation, as the case may be, and shall include a description of the nature and scope of the project and the reasons for the Commissioner's or the Director's determination that awarding a design-build contract will best serve the public interest. The provisions of this section shall supersede contrary provisions of subsection D of § 2.2-4303 and § 2.2-4306.

C. Notwithstanding any other provision of law to the contrary, the Commonwealth Transportation Board may authorize the procurement of design-build finance agreements for transportation projects or facilities, subject to the provisions of this subsection which establishes the Commonwealth's DBF Pilot Program.

1. For the purposes of this subsection, "design-build-finance agreement" is defined as an agreement between the Commonwealth and a private sector contractor, whereby the contractor agrees to design, build, and finance all or a portion of the cost of a transportation project or facility, and payments from the Commonwealth to the contractor for the cost of the project or facility are subject to appropriation and payable over a duration of time greater than the design and construction period.

2. All agreements under the subsection shall state in their provisions that (i) the Commonwealth of Virginia is not obligated to pay the amounts due under the agreement, except from the designated funds and revenues under this subsection and from any other legally available sources of funds, (ii) the full faith and credit of the Commonwealth are not pledged to the payment of the same or of the principal or interest of any financing for such design-build-finance approach, and (iii) all payments are subject to appropriation.

3. Payment obligations in agreements authorized under the provisions of this subsection shall not be deemed to constitute a debt of the Commonwealth of Virginia or a pledge of the full faith and credit of the Commonwealth, but such payments shall be payable solely from (i) revenues, if any, generated by the transportation project or facility being financed thereby, deposited into a special fund for the purpose of securing such payments, in accordance with the design-build finance agreement; (ii) then, at the discretion of the Commonwealth Transportation Board, to the extent required, from legally available funds allocated by the Board for such purpose from the Transportation Trust Fund and/or Highway Maintenance and Operating Fund; and, (iii) to the extent required, from such other funds, if any, which are designated by the General Assembly or available from other sources, for such purpose.

4. The Commonwealth Transportation Board may authorize agreements or contracts pursuant to this subsection, subject to the following conditions:

(i) The aggregate principal amount for all outstanding amounts due under design-build-finance agreements authorized pursuant to this subsection shall not,

at any time, exceed \$500 million; except that this amount may be increased to the extent that any project or facility that is the subject of a design build finance agreement generates revenues that are dedicated for payment of obligations under such agreement. In such case, the foregoing aggregate principal amount for all outstanding design-build-finance obligations may be increased by estimated annual revenues, as determined by the Department that will be generated in the then-current fiscal year from any and all projects and facilities that are the subject of design-build-finance obligations authorized pursuant to this subsection.

(ii) No finance or payment obligation pursuant to a design-build-finance agreement shall be established for a term longer than 6 years after final completion of the project or facility as determined pursuant to the applicable design build finance agreement; and

(iii) The Board shall establish guidelines, setting forth criteria regarding the development of projects under this subsection, which shall include the criteria that delivery of the subject transportation projects or facilities must be expedited, and that the public interest would best be served, by engaging in DBF Agreements that include such approach; and prior to authorizing any DBF Agreement pursuant to this act that utilizes the design-build-finance approach, the Board shall render a determination that the development of a project under the DBF Pilot Program complies with the guidelines and criteria established by the Board. Such determination shall be retained for public inspection in the official records of the Board and shall include a description of the nature and scope of the transportation project or facility and the rationale for the Board's determination that the project developed under the DBF Pilot Program will best serve the public interest and satisfies the criteria established by the Board.

D. The Board may award contracts for the provision of equipment, materials, and supplies to be used in construction of transportation projects on a fixed-price basis. Any such contract may provide that the price to be paid for the provision of equipment, materials, and supplies to be furnished in connection with the projects shall not be increased but shall remain fixed until completion of the projects specified in the contracts. Material components of any such contract for annual and multiyear programs, including maintenance, may be fixed at the outset of the projects and until completion based on best achievable prices.

§ 33.2-221. Other powers, duties, and responsibilities.

A. The Board shall have the power and duty to comply fully with the provisions of the present or future federal aid acts. The Board may enter into all contracts or agreements with the United States government and may do all other things necessary to carry out fully the cooperation contemplated and provided for by present or future acts of Congress related to transportation.

B. The Board shall have the power and duty to enter into all contracts with other states necessary for the proper coordination of the location, construction, maintenance, improvement, and operation of transportation systems, including the systems of state highways with the highways of such other states, and where necessary, seek the approval of such contracts by the Congress of the United States.

C. The Board shall have the power and duty to administer, distribute, and allocate funds in the Transportation Trust Fund as provided by law. The Board shall ensure that the total funds allocated to any highway construction project are equal to total expenditures within 12 months following completion of the project. However, this requirement shall not apply to transportation projects constructed pursuant to § 33.2-209 (C).

D. The Board shall have the power and duty, with the advice of the Secretary of Finance and the State Treasurer, to engage a financial advisor and investment advisor who may be anyone within or without the government of the Commonwealth to assist in planning and making decisions concerning the investment of funds and the use of bonds for transportation purposes. The work of these advisors shall be coordinated with the Secretary of Finance and the State Treasurer.

E. The Board shall have the power and duty to enter into payment agreements with the Treasury Board related to payments on bonds issued by the Commonwealth Transportation Board.

F. When the traffic-carrying capacity of any of the systems of state highways or a portion thereof is increased by construction or improvement, the Board may enter into agreements with localities, authorities, and transportation districts to establish highway user fees for such system of state highways or portion thereof that the localities, authorities, and transportation districts maintain.