

Virginia Corridor Partners (VCP)

The following questions are posed by the Independent Review Panel (IRP), VDOT staff, and localities/agencies. We would appreciate your team providing answers to these questions. The first set of questions is being provided to each proposer. The second set of questions is specific to your proposal. We recognize that many of these questions reflect long-term planning and corridor management issues. If your proposal is not developed to a stage that is adequate to address a question, please provide as much information as possible and respond that such issue would be addressed during a subsequent stage of project development.

Questions for All Proposers to Respond

1. Are there anticipated design challenges or design exceptions for the project? Do you know what these may be at this stage of your proposal development? If so, please provide this information.

VCP Answer #1 : We have no design exceptions assumed in our conceptual proposal for this project. We feel that the most significant design challenge will be (i) producing a design in which there will be the minimal environmental impact, and (ii) producing a design that can be constructed cost-effectively with respect to the expected toll revenues.

2. Please provide examples of performance measures and standards that you feel are applicable for use on this project?

VCP Answer #2 : All roadway elements are designed in accordance with VDOT RDM 2005 standards for Rural Principal Arterial (GS-1). All horizontal curves, vertical curves and the roadway typical section meet or exceed the geometric standards for 70 mph design speed. Typical side slopes in fill are 4:1, which allows us to meet AASHTO Roadside Design Guide standards for recoverable fill slopes. Embankment design will be in accordance with VDOT RDM standards. Drainage design will be in accordance with VDOT Drainage Manual (2002). Storm water management will adhere to DCR's Stormwater Management Handbook (1999) and erosion & sediment control practices will adhere to DCR's Erosion & Sediment Control Handbook (1992)e will use the VDOT *Road Design Manual*, AASHTO, and Interstate Highway design standards for this project. We will develop performance standards customary for PPP toll roads including availability, cleanliness, safety, incident response time, and ride characteristics. The performance measures and standards approved by VDOT will ultimately be part of the Concession Agreement.

3. Who will determine when toll increases are needed and what is your plan for public outreach in conjunction with these increases?

VCP Answer #3 : We understand that VDOT, through the negotiated terms and conditions of the Concession Agreement, or the Hampton Roads Transportation Authority, as the regional tolling agency will receive, review, analyze, and grant permission for toll increases. The negotiated Concession Agreement will stipulate the boundaries, limits, or caps and other conditions which define the justification for submitting such a request. These agency's approval process is a public and transparent procedure in which the general public receives notice of requests and pending actions. Public notices would be posted by VCP along the facility well ahead of any approved increase being implemented.

4. Does your life cycle cost analysis include provisions for roadway improvements and added capacity over the term of the concession? Please provide examples of anticipated improvements?

VCP Answer #4 : Our conceptual life-cycle analysis anticipates re-surfacing at regular intervals and this cost is included in the O&M-portion of the conceptual cost estimate. Highway renewal would occur as needed during the life of the concession. In addition, there would be a detailed set of requirements and conditions to be met for turn-over of the road at the end of the concession period. In order to maintain a level of service at a "B" or "C" quality, we would add capacity when traffic volume warrants. Our proposal does not preclude lane widening or other capacity enhancements.

5. What operations will be performed as part of your toll facility operations and how will these be coordinated / interfaced / integrated with the VDOT STC located in Hampton Roads?

VCP Answer #5 : We will, as described in our proposal, provide a modern facility fully compatible with and electronically connected to the Smart Travel Centers in Hampton Roads and Richmond. Our facility would be required to provide the information and data equivalent to and compatible with the Freeway Management System:

- Closed Circuit Television (CCTV) for surveillance
- Vehicle Detection Stations (VDS) for measuring volume, speed, and lane occupancy
- Variable Message Signs (VMS) for specific en-route traveler information

- Highway Advisory Radio (HAR) for broadcasting en-route traveler information
 - Communications Subsystem (COMM) of various forms – fiber optics, leased phone lines, microwave, or wireless.
 - Servers and Software for logging incidents, generating response planes, and posting messages
6. How will incident response be coordinated with VDOT STC / SSP (Safety Service Patrol)? VDOT STC /SSP has developed strong jurisdictional relationships with Virginia State Police (VSP) and local police / fire rescue. Please discuss how your team intends to develop an effective response network that utilizes all available resources.

VCP Answer #6 : With regard to incidents and emergency situations, we have made provision for a first response team and, in particular, to look after the welfare of the traveling public until the arrival of the designated authorities.

When an incident is identified we will notify the relevant external response services simultaneously with the dispatch of our incident response team. The intent is to ensure the welfare of the public, the environment and to facilitate any clean up activities required.

To facilitate the first response effort we have proposed to establish three operations response facilities, located strategically so that response times are achieved within 15 minutes at any location along US 460. (Note; in consideration of the location of these facilities, it is intended that local people will be employed to manage the incident response units. Early dialogue will be established with the Virginia State Police, the local fire/rescue units and other local emergency agencies to form a cooperative team and associated protocols and procedures to deal with any event). Our systems and personnel will be linked to the STCs at both ends of the new US 460 (Richmond center and Hampton Roads center). We will conduct familiarization visits and participate in drills and emergency rehearsals with the local agencies.

7. What systems and toll facilities technology will be installed on the project; what upgrades are anticipated; when are these upgrades anticipated to occur and what are the associated costs? What systems and equipment are expected to be turned over to VDOT at the end of the concession period and what condition will these be in.

VCP Answer #7 : We intend to implement a maintenance regime to provide support services for any electronic or manual toll collection

systems. At the same time, we will plan for ongoing upgrades for these systems as new technology becomes available.

For integration purposes, we suggest the tolling system and facilities will be implemented in accordance with existing tolling infrastructure in the State of Virginia.

At the end of the concession period, we will hand back fully operational systems and facilities that have been supported by our "Whole of Life" asset management strategy. We will comply with the remaining life requirements of the assets as specified by VDOT. VCP's Operations and Maintenance cost estimate includes upgrades and replacement of the electronic tolling systems.

8. How many bridges and box culverts do you anticipate for this project and what is your estimated length of the bridges?

VCP Answer #8 : VCP anticipates a total of 67 structures. 62 of these structures will be bridges of varying length totaling 36, 415 feet. The remaining five (5) structures will be large box culverts of varying length totaling 1,900 feet. The total length of the project structures is anticipated to be 38, 315 feet.

9. Please provide a specific proposed cost estimate (in year 2007 \$) for each of the following project phases. If you are proposing alternative scenarios, provide for each scenario. The costs you provide for this question should correspond with information used to develop your proposal. Please provide a narrative of what is included and excluded in the costs for each item.

- A. Right of Way Acquisition and relocation
- B. Environmental permitting/mitigation/requirements
- C. Design
- D. Utility relocations
- E. Construction – roadway
- F. Construction – Bridges and structures
- G. Project Management
- H. Construction Administration/inspection
- I. Initial toll facility, equipment and infrastructure costs
- J. Toll facility and ITS operations (average annual cost)
- K. Roadway maintenance (average annual cost)

VCP Answer #9 : The information provided below summarizes the cost estimates shown in Tables 3.1 and 3.6 (pages 74 and 87, respectively) of the VCP proposal, section 3. The line items requested for this response are different than those required in the proposal, so the subtotals and totals do not match. Please note, however, that the ROW, construction, tolling, toll & ITS, etc. amounts reconcile with those in the proposal. The amounts provided in our proposal are for 1/1/2007. The totals for each case

<u>BASE CASE</u>	<u>amount</u>	<u>narrative</u>
A. ROW	\$71.0 million	all ROW acquisition work is included
B. Environmental	\$5.0 million	all environmental work is included
C. Design	\$58.0 million	all design work is included
D. Utilities	\$40.0 million	all utility relocation work is included
E. Roadway	\$510.0 million	all roadway construction is included
F. Bridges	\$330.0 million	all bridge and structure work is included
G. P M	\$96.0 million	all management is included
H. CA/inspection	\$15.0 million	all administration and inspection is included
I. Tolling Eq.	\$38.0 million	all tolling equipment and facilities are included
J. Toll &ITS (annual)	\$11.4 million	all operations costs are included
K. Maintenance (annual)	\$5.7 million	all maintenance costs are included

<u>ALTERNATE CASE</u>	<u>amount</u>	<u>narrative</u>
A. ROW	\$0.0 million	ROW acquisition is excluded
B. Environmental	\$4.0 million	permitting performed by VDOT
C. Design	\$57.0 million	all design work is included
D. Utilities	\$40.0 million	all utility relocation work is included
E. Roadway	\$505.0 million	all roadway construction is included
F. Bridges	\$296.0 million	all bridge and structure work is included
G. P M	\$85.0 million	all management is included
H. CA/inspection	\$15.0 million	all administration and inspection is included
I. Tolling	\$38.0 million	all tolling equipment and facilities are included
J. Toll &ITS (annual)	\$11.4 million	all operations costs are included

K. Maintenance (annual) \$5.7 million all maintenance costs are included

(note: item "k" includes all routine business operations, tolling operations, and ITS operations)

10. In view of the proposed Route 460's use as an evacuation route, what is the minimum roadbed elevation above the 100 year flood plain for your proposal?

VCP Answer #10 : With the information available at this time, the design reflects all highway (roadway surface) and bridge components (superstructure members) of the corridor at an elevation 2 feet above the 100 year storm event. We are prepared to accept additional or alternate specific design criteria from VDOT, FHWA, or the Governor's Office of Emergency Preparedness, should another elevation be required.

11. Route 460 is a part of the federal Strategic Highway Network (STRAHNET) and "Fort to Port" mobilization system. This makes it Critical Infrastructure in both federal and state regulations. This designation requires that certain protective measures be applied to protect the security of the designated infrastructure. Are you prepared to accommodate this requirement within your proposed project costs? See attached Security Requirements documentation for a review of VDOT's existing Security policies.

VCP Answer #11 : Yes, we are prepared to meet the documented security requirements.

12. Please provide a description of your plans for emergency evacuations that would be accomplished utilizing the entire facility for uni-directional traffic flow away from the Hampton Roads area.

VCP Answer #12 : In consultation with the local agencies / authorities and VDOT, in emergency evacuation situations, all traffic will be converted to uni - directional flow. We will provide additional resources to close down "feeder" and other connector roads that may be affected by the uni-directional program. Communication briefs will be provided immediately to local radio stations to ensure the general public is made aware of the situation together with additional variable message signs advising the public of the changes to traffic conditions.

As part of our operational brief, we will prepare a series of traffic management plans accommodating all types of traffic management

changes that may occur during emergency evacuations. Under all circumstances, all actions and communications will be taken in consultation and with the approval of local agencies / authorities and with the full knowledge of the VDOT STC. The physical elements necessary would include operable gates to preclude entry to ramps accessing normally eastward lanes turned for counter-flow. In addition, more frequent median crossings would be installed to turn or divert traffic to the west. Two-sided signage, including electronic sign boards would be installed in the east lanes for use in westward evacuations.

13. In an emergency situation, tolls will often need to be suspended to effectuate necessary movements. How do you propose to handle such an occurrence?

VCP Answer #13 : Tolls would be suspended during a declared emergency, or as defined in the Concession Agreement. It is not anticipated that accidents would be defined as toll-suspension events. Tolling functions will be controlled by the main Operation and Maintenance Control Center. Suspension of tolls is an electronic function and the suspension of any toll collection can be initiated electronically.

14. As part of the nation's critical infrastructure, special security measures may, from time to time, have to be put in place on Route 460. Some examples of this might be radiological detection apparatus, special surveillance arrangements etc. How do you propose to facilitate and accommodate such measures in your proposal?

VCP Answer #14 : Special security situations would imply emergency or unusual situations. In any such circumstance, we would comply with and assist the Governor's Office of Emergency Preparedness or any other fire, health, life-safety, or civil/criminal protection agency. To the extent such measures and/or equipment can be identified, the measures to acquire, stockpile, and deploy these items would be included in the negotiated Concession Agreement.

15. If any of your designs or alignments fall outside the study corridor of the project's environmental document, please provide the cost, schedule, and related impacts upon the project and your plans to address these issues.

VCP Answer #15 : The US 460 mainline and all interchange ramps are contained within the 500' detail study corridor designated for alignment CBA1. We have used the shifted alignment around the Mill Creek Subdivision near Zuni, and will comply with the alignment shift approved at

the January CTB meeting. If we go outside the corridor, it would only be for approach work on a secondary road or for a frontage road. Improvements to or enhancement of access to the Port, although outside the study corridor would be of interest to VCP, should VDOT wish to pursue this idea.

16. In order to clarify the project financing requirements of Section 5.5.6 of the Solicitation of Proposal (SFP), what are your proposed VDOT responsibilities and the related cost savings to the project for VDOT performing these activities?

VCP Answer #16 : These elements were not quantified at the conceptual proposal stage. We are prepared, and have estimated the cost, of performing all of the project requirements and responsibilities ourselves. Our alternate proposal shows a decrease in cost of \$350 million and a reduction of 2 years to the project schedule should VDOT (or others) carry the ultimate responsibility for ROW acquisition, permitting, insurance procurement, tolling back office functions, and a shortened procurement time as described in our proposal section 2.3 (page 62).

17. What consideration have you given for improvements to existing secondary roads where interchanges are proposed? Are these considerations included in your cost estimate? If additional cost will be required, please describe the conceptual improvements and the associated estimated costs.

VCP Answer #17 : We have proposed no improvements to existing secondary roads beyond the limits of the ROW to be acquired. Grade separated crossings and intermediate interchanges transition to the existing secondary roads depending upon the terrain and crossing grades.

18. Does the proposer intend to construct rest areas? If so, where would they be located and what services are anticipated?

VCP Answer #18 : We have discussed this issue, but currently do not have a rest area in our design. It is possible that we would consider a complete travel plaza as a subordinate concession to enhance revenue for the toll facility. With the recent change in DOT-allowed driver's hours, finding safe rest areas has become increasingly difficult and is a serious trucking industry issue. Providing such a facility without services might still increase the attractiveness of the facility and induce more traffic. We would like to explore VDOT's views on this issue. Crime, congestion, and safety are issues surrounding this idea.

19. Does the proposer intend to construct a new maintenance facility or use existing capabilities?

VCP Answer #19 : Yes, we intend to construct three new O&M facilities comprising one major facility and two satellite depots. Each of these facilities will include emergency and incident response personnel.

The hub facility will be at the main office and control center complex (possibly on the outskirts of Suffolk) with the two satellite depots strategically located near town centers along US 460. The depots are located in order to provide maximum coverage of the tollway so as to ensure at all times that incident response times of not more than 15 minutes are achieved. We would be happy to discuss with VDOT the possibility of using existing facilities should they be conveniently located and of adequate capacity – and in satisfactory condition for the purpose and workload intended.

20. How does the proposer plan to accommodate access by local users to their farm land if impacted by the new Route 460?

VCP Answer #20 : We intend to preserve local access by first constructing all interchanges as documented in the DEIS. In addition, frontage roads are one option, but a poor one. We would like to explore with VDOT the possibility of providing “super-sized” culvert access at very specific, discrete points where farm traffic has been severely cut off.

21. To help clarify information in your proposal, please designate who would be responsible for the following functions and are the associated costs included in your proposed project costs.

- A. Emergency response – VCP Operations Staff & local entities (costs included)
- B. Incident management – VCP Operations Staff & local entities (costs included)
- C. User fee collection – VCP (costs included)
- D. Toll enforcement – VCP / Virginia (VDOT & State Police) (costs included)
- E. Snow removal – VCP (costs included)
- F. Maintenance – VCP (costs included)
- G. Operations – VCP (costs included)

VCP Answer #21 : We will provide sufficient trained and qualified personnel to fulfill all the stated services with the exception of Toll Enforcement which we believe to be within the jurisdiction of the local police and other law enforcement agencies. We will provide any documentation or photographic support to apprehend toll violators.

VCP intends to employ local resources to complete all the associated tasks to ensure the smooth operation of the tollway. We will provide all the necessary snow removal and other resources necessary to make this project a success.

22. Your proposal indicates that annual revenue will be used for operations. How does the proposer plan to make up a shortfall if revenue projections are not met?

VCP Answer #22 : Pursuant to the terms agreed in the Concession Agreement, VCP would be at risk for any traffic and revenue shortfalls. Should there be a shortfall, operations and maintenance will not be curtailed. It is the responsibility of VCP to operate and manage the road regardless of the annual revenue.

Proposal Specific Questions for VCP

23. Please describe a conceptual plan for ITS (Intelligent Transportation System) and how this will be applied to the Route 460 project.

VCP Answer #23 : VCP has proposed to support an Intelligent Transportation System (e.g.; Variable Message Signs and electronic information boards). An appropriate level of staffing will be put in place to operate and maintain the system and to also accommodate any ongoing changes or modifications to the existing system. Various temporary and movable information and directive devices would be available for accident control and management.

The ITS will be integral to providing disaster relief and timely response to major incidents and emergencies. ITS will also be made available to local agencies / authorities during any such incident or disaster. Further, the system will be utilized to provide drivers with updated travel information such as travel time, traffic density, updates on traffic situations, weather information, etc., relevant to users. The ITS system will tie in to regional system centers around Richmond and Hampton roads.

24. Your proposal identifies equity distributions between years 2014 and 2041. Define your hierarchy for all distributions. If toll revenues are not realized, will the reduction be applied to the equity distributions?

VCP Answer #24 : The hierarchy is: (i) taxes, (ii) operating expense, (iii) capital expense, (iv) debt, and (v) equity in order from highest to lowest . In case toll revenues are not realized, the lowest level, equity, would be the first to be impacted and distributions would not be made to the equity holders. The other expenses moving up the levels of the hierarchy would be met at our cost.

25. If construction of an interchange is delayed, does the proposer intend to acquire the needed right of way at the inception of the project?

VCP Answer #25 : We intend to acquire all ROW initially and have thus included the full ROW acquisition cost in our estimate.

26. The proposer suggests some options for additional sources of revenue. Two of these options include contributions from developers along the corridor and a small increase in shipping charges “in exchange for access to and competitiveness of the Port of Norfolk”. How does the proposer plan to access these additional sources of revenue? Please describe a plan of action that identifies possible policy, regulatory, or legislative changes that would be needed to access these revenue streams.

VCP Answer #26 : Improvements to US 460 will increase the value of adjacent property, particularly property located near interchanges. The increased value of land could be captured through appropriate development districts created to capture that added value. A portion of the increased value could accrue to localities for public amenities, while a portion could be captured to contribute to the overall US 460 project costs (realizing that the improved roadway contributes significantly to the development potential of adjacent land).

While the Port of Hampton Roads benefits from improved mobility, those benefits accrue back to Virginia in the form of increased economic activity. Our current thought is that increased shipping charges are not a likely viable source of additional revenue.

Additional sources of revenue, including new developments such as regional taxes and HB3202, could help reduce reliance on revenues from sources other than tolls should they become available.

27. You propose to seek contributions from “key beneficiaries” along the corridor. How does the success of this approach affect your financial model?

VCP Answer #27 : The key beneficiaries are primarily the localities, counties, and developers who may benefit from increased economic activity, spurred in part by the improvements made in the US 460 corridor. In that regard, we refer back to our response to question #26.

28. In your base scenario, you propose grade separated structures over/under the new Route 460 at numerous locations in each County; however, these are not enumerated and the team proposes to cul-de-sac some low volume roadways. This concept seems to contradict the idea of maintaining connectivity within the region. Please explain.

VCP Answer #28 : On a conceptual basis we have assumed that any road severed at the new US 460 would be connected by a non-continuous frontage road leading to another access road for return to old US 460 or for connection to one of the numbered secondary roads crossing over the new US 460. We have provided every interchange and crossing that the DEIS and VDOT have specified. Our base proposal includes 25 bridges carrying county roads over the new US 460 to maintain local access and mobility.

29. In your alternative scenario, you propose to remove 25 bridge structures from local road crossings. How do you propose to provide access to both the new Route 460 and to local travel for local users?

VCP Answer #29 : The alternate scenario was devised as a cost-saving measure only. It suggests eliminating those 25 bridges carrying county highways over the new US 460, as elevated structure is an expensive item in highway construction. Acknowledging that there is a funding “gap”, cost reduction is one way to reduce this “gap” should VDOT find that scope reduction is a necessary measure to ensure implementation the work.

30. What is the definition of the term “local” when you reference “a reduced rate or free to local travelers”?

VCP Answer #30 : We consider a “local trip” to be one that has an origin and destination at two adjacent interchanges. Working with that definition, we are willing to consider a varying toll structure for local trips. A local trip toll structure could take the form of reduced tolls, or possibly no toll. However, it is important to note that a final decision on toll regimes will

depend on refined traffic estimates to determine the anticipated number of local trips vs. long-distance trips.

31. Please describe what is meant by the term “Significant Public” contribution, when discussing possible revenue streams in your Executive Summary.

VCP Answer #31 : “Significant Public Contribution” refers to circa \$50 million per annum required either from (i) alternate revenue sources, (ii) government contribution, or (iii) reduced construction cost.

32. You present the concept of “Regional Corridor Management” to help provide the funds necessary to construct the Route 460 project. Please provide a conceptual plan of how this would work, which facilities would be included, as well as any known or perceived constraints to such system.

VCP Answer #32 : A regional corridor concept recognizes the fact that there are two predominant pathways for surface traffic between Richmond and Hampton Roads: US 460 and the I-64. Additionally, there are existing surface facilities that connect those two corridors: the James River Bridge via Rtes. 17 and 32, and via I-295. The Jamestown-Scotland Ferry also connects Rte. 31 across the James River.

Conceptually, tolls of varying amounts could be considered on I-64, I-295, the James River Bridge, and the Jamestown-Scotland Ferry. Tolls could be structured such that a certain amount could be dedicated to improvements to, or continued maintenance of, these routes. A residual amount could be dedicated to the US 460 project. In the case of the Jamestown-Scotland Ferry, tolls could be dedicated to operating and maintenance expenses supporting the ferry operation or to new capital expenditures for equipment, or buildings and grounds. A more precise development of this concept would be included in a detailed proposal, based on more refined traffic revenue estimates.

Constraints include obtaining the necessary approvals to toll either I-64 or I-295, as well as the overall public acceptance of tolls being placed on routes or ferry services that are currently free.

33. In your proposal, you noted a possible revenue source could be other facilities in the Hampton roads area. How would your proposed tolling of other Hampton Roads transportation facilities be incorporated into this proposal?

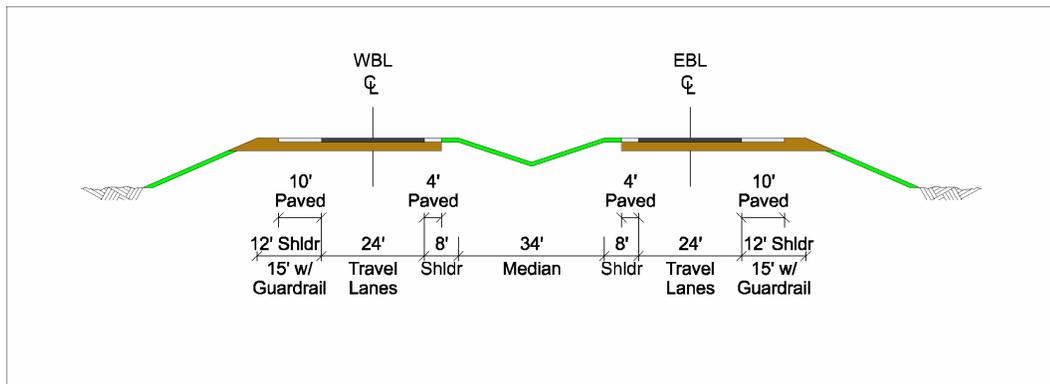
VCP Answer #33 : Response to Question #32 covers Question #33 as well.

34. Provide a description of a typical section for the new Route 460 and the anticipated design speed.

VCP Answer #34 : The mainline US 460 typical section consists of two 12-foot lanes in each direction, separated by a 50-foot depressed median. Outside shoulders are typically 12 feet wide, with 10-foot paved shoulders. Inside shoulders are typically eight feet wide, with four-foot of paving.

The mainline pavement structure consists of 1.5" of surface asphalt, 3" of intermediate asphalt, and 8" of base asphalt, over a 10" aggregate base course and a 12" aggregate drainage subbase layer daylighted to the outside slope. The paved shoulder structure consists of 2" of intermediate asphalt and 6" of base asphalt over aggregate base and subbase courses.

As addressed in question #, the design speed used for this alignment is 70 MPH.



Question sent on Friday, March 30, 2007

35. In your alternate scenario, you describe a cost savings of \$350 million if VDOT performs certain activities. Does this result in a transfer of costs from VCP to VDOT or an actual project savings and if it is a project savings will VCP reimburse the VDOT for performing those activities?

VCP Answer #35 : The main objective of the alternative scenario is to significantly reduce the procurement process as well as the construction period to create a real saving in escalation costs which benefit will pass to

VDOT in the form of strengthened financial viability of the project and a minimized need for any potential financial support/additional revenue sources.

Moreover, in the alternative scenario it is proposed that VDOT retain certain risks relating to ROW acquisition, permitting, and other tasks so that VCP construction risk contingencies can be held at a minimum, a benefit that will flow to VDOT in the form of a lower overall project cost and enhanced viability of the project. There are further some activities and functions that VDOT can perform at a lower cost than the private sector. VCP will be willing to discuss with VDOT how such activities can be compensated taking into consideration the overall financial viability of the project.