

**Hampton Roads Transportation Accountability Commission  
Funding Strategies Advisory Committee  
(Formerly the HRTAC Technical Advisory Committee)**

**December 15, 2015**

**9:30 AM – 11:30 AM**

The Regional Building Board Room A, 723 Woodlake Drive, Chesapeake, Virginia 23320

**AGENDA**

9:30 am

1. Call to Order
2. Minutes of the October 13, 2015 and November 17, 2015 FSAC Meetings  
(Attachment 2-A and 2-B)  
*Recommended Action: Approval*
3. Presentation - Regional Priority Project Prioritization  
*Recommended Action: For information*
4. Presentation – Economic Impact of Tolls on Freight Transportation Costs in the Hampton Roads Region  
*Recommended Action: For information*
5. HRTAC Plan of Finance – Update/Discussion  
*Recommended Action: For information*
6. New Business  
Next Meeting:  
January 19, 2015, 9:30 a.m. – 11:30 a.m.  
The Regional Building Board Room  
723 Woodlake Drive  
Chesapeake, VA 23320  
Adjournment

**Hampton Roads Transportation Accountability Commission (HRTAC)**  
**Funding Strategies Advisory Committee**  
**Summary Minutes of the November 17, 2015 Meeting**

The Hampton Roads Transportation Accountability Commission (HRTAC) Funding Strategies Advisory Committee Meeting was called to order at 9:43 a.m. in the HRTPO Regional Board Room located at 723 Woodlake Drive, Chesapeake, Virginia, with the following in attendance:

**HRTAC Funding Strategies Advisory Committee Members in Attendance:**

Neal Crawford, Chair	W. Sheppard Miller, III
Lynn Allsbrook	C. Earl Sorey, Jr.
Joe Frank	Jody Wagner
Harry Lester	

**HRTAC Executive Director**

Kevin Page

**Other Participants:**

Scott Allaire	David Miller
Tom Inglima	Camelia Ravanbakht

**HRTAC Funding Strategies Advisory Committee Members Absent:**

James Koch	Alan Parrott
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\* Denotes Late Arrival or Early Departure

**Others Recorded Attending:**

Thelma Drake, Jeffrey Raliski (NO); Bryan Stilley (NN); Bob Matthias (VB); Bill Cashman (AECOM); Frank Papcin (Citizens Advisory Committee); Scott Forehand, Don Quisenberry (eScribeSolutions); Mary DiMontino (J.P. Morgan); George Consolvo, Kevin White (Kaufman & Canoles); Tracy Baynard (McGuire Woods Consulting); Karen McPherson (McPherson Consulting); Kevin Rotty (PFM); Dennis Heuer (RK&K); David Forster (Southside Daily); Dianna Howard (TLP, VBTA, VBTP); Jeff Florin (VPA); Tony Gibson, James W. Long, III (VDOT); Amber Randolph (Willcox & Savage); Rob Case, Mike Kimbrel, Chris Vaigneur (HRTPO);

**Call to Order**

Hampton Roads Transportation Accountability Commission Funding Strategies Advisory Committee Chair Neal Crawford called the meeting to order at 9:43 a.m.

**Public Comment Period (limit 5 minutes per individual)**

No Public comments were offered.

## **Minutes of October 13, 2015 meeting**

Approval of the minutes was deferred due to a lack of committee members present to take action.

### **Chair's Comments**

Chair Crawford reminded the committee of its charge: to recommend funding strategies to facilitate the nine projects identified by the HRTPO and the Commission. He stated that David Miller of PFM was going to present the results of the hard work of the committee, PFM, other consultants, and Executive Director Kevin Page.

He noted that a request will be made of the HRTPO to help examine the impact of tolling on localities. Chair Crawford added that the HRBT is included in the scenarios due to its large impact on regional transportation. He announced that the committee will deliver the initial scenario plans to HRTAC on November 19, 2015.

### **Information Items**

#### **HRTAC Plan of Finance Presentation**

Mr. David Miller of PFM shared financial plans incorporating all projects under study. The presentation included several scenarios that imposed tolls, and also highlighted the additional tax revenue and state and federal assistance that might be needed. Mr. Miller presented the following information:

- The history of numerous transportation project studies that examined project feasibility and funding options, which indicated a regional tolling system as a solution to funding. Mr. Miller referred to legislation (based in large part on those studies) that created the Hampton Roads Transportation Authority (HRTA). HRTA was given the ability to create a tax package, and then the taxes were invalidated via lawsuit and ultimately HRTA legislatively eliminated.
- A review of the Long Range Transportation Plan reflects HRTAC projects and included other projects such as the Downtown and Midtown tunnels, but the HRBT was not included in the “nine.” He indicated that there was an assumption that the High Rise Bridge, Patriots Crossing, Monitor Merrimac, and HRBT would be toll-all-lanes.
- An amendment to the plan called for elimination of some tolling and resulted in the Monitor Merrimac and HRBT projects being removed from the transportation plan.
- Current revenue forecasts of the HRTF show a substantial reduction from initial estimates.

- The “nine” projects and the HRBT create a regional tolling system concept because of the integrated network of roads and actions on one will impact traffic on others.
- A P3 toll concession approach is inferior when compared to a regional tolling system approach.
- Non-tolling funding assumptions reflect funding availability from different sources.
- Possible solution to closing the funding gap include:
  - Having a floor under the fuel tax that is part of HRTF;
  - Taking some rehabilitation costs from State of Good Repair dollars;
  - Arranging with VDOT to pay for construction management costs;
  - Considering higher toll rates;
  - Using HB2 district and state funds;
  - Entertaining an alternate project construction sequencing concept (implementing the most efficient toll projects first);
  - Deferring projects; and
  - Altering the project construction sequence.

Mr. Harry Lester stated he heard that the CTB is not inclined to approve a static toll on all lanes and that people are looking for free options. Mr. Sheppard Miller responded that he did not know and also could not predict moves by the Federal Highway, the Secretary of Transportation, CTB, and legislators. He added that he would later request an Executive Session to discuss some items.

Mr. David Miller stated that effort was made to build a flexible model to facilitate the running of alternatives such as deferring projects, mixing and matching some HOT lanes and others. Mr. Lester reminded them of the impact of tolling.

Mr. Joe Frank commented that the committee’s job is to take to HRTAC a fiscally constrained plan that includes building all projects by 2040. He stated that it is imperative to keep tolls low and find alternative revenue sources. He noted the necessity to receive public support of the plan.

Dr. Camelia Ravanbakht pointed out that the Congestion Mitigation and Air Quality funding (CMAQ) as well as Regional Surface Transportation Program (RSTP) should be removed from the funding list.

Ms. Jody Wagner asked for clarification of anticipated toll increases due to inflation. Mr. Scott Allaire of CDM Smith responded that 2.5% is the anticipated inflation rate, and that 2017 was the base year.

Mr. Sheppard Miller expressed concern about isolating the region in an all-toll scenario, the so called "Ring of Fire". He asked about tolling cost percentage, and if a single number had been determined, noting that he had heard that the cost is between 5% and 22%. Mr. David Miller and Mr. Allaire added information suggesting that the rate would be lower than 22 percent, and in the case of the proposed \$2 tolls, the number should be well under 10 percent.

Executive Director Kevin Page noted the plan being used in Northern Virginia and that consideration should be made to approaching VDOT to join HRTAC in a cooperative long-term framework, which he intends to discuss with the Commissioner on the day of the next HRTAC Regular Meeting.

Mr. Sheppard Miller and Mr. Frank shared concern regarding the projected revenues. Mr. David Miller pointed out again that timing of projects matters.

After discussion of revenue estimates, Mr. Sheppard Miller asked if the number in the presentation is larger than it is going to be, and Mr. David Miller explained that the present value of proceeds actually available for construction is going to be lower. Noting several of the projects and the High Rise Bridge as an example, Mr. David Miller stated that revenues are not going to cover 100% of the cost of the projects over a 40-year period.

Mr. Sheppard Miller expressed concern regarding repair and expansion of the HRBT and asked if rehabilitation costs are included. He noted the need to renovate the HRBT after alternative project construction, not before it.

Mr. Earl Sorey asked about HOT lanes on Route 460/58 in several scenarios and whether those expected toll revenues have been compared to the cost of adding the lanes. Mr. David Miller stated that the cost difference between HOT and not-HOT on that project is not great.

Mr. Sorey also noted that the number for present value costs for the High Rise Bridge is different from the study done by the State. Mr. Sheppard Miller questioned how the cost is known if the height is not known.

Mr. Joe Frank shared his concern about the infrastructure of the HRBT, and that a third crossing is needed to take the pressure off the HRBT in the event it had to be closed or traffic reduced. He pointed out that repairs will take a long time and concurred with Mr. Sheppard Miller that improving the HRBT should not be done first.

Mr. Sheppard Miller Moved to move to a closed session to be held to discuss and consider the application interpretation of laws related to tolling, and the bond validation process, both in connection with the Commission's Plan of Finance, which closed session will be held in accordance with Virginia Code Section 2.2-3711 (A)(7) for the purpose of consultation with legal counsel employed or retained by the Commission regarding specific legal matters requiring the provision of legal advice by such counsel; seconded by Mr. Harry Lester. The Motion Carried Unanimously.

The HRTAC Funding Strategies Advisory Committee was moved to Closed Executive Session at 11:34 a.m.

The HRTAC Funding Strategies Advisory Committee returned to Open Session at 11:42 a.m.

Mr Sheppard Miller made the following Certification Statement: The Funding Strategies Advisory Committee hereby certifies that to the best of each member's knowledge: (i) only public business matters lawfully exempted from open meeting requirements under the Virginia Freedom of Information Act, and (ii) only such public business matters as were identified in the motion by which the closed meeting was convened, were heard, discussed or considered in the closed meeting just concluded.

A roll call vote confirming the Certification Statement made by Mr. Sheppard Miller was held. The results were as follows:

Mr. Harry Lester:	Aye.
Ms. Jody Wagner:	Aye.
Mr. Sheppard Miller:	Aye.
Mr. Joe Frank:	Aye.
Chair Neal Crawford:	Aye.

### **Next Meeting**

The next HRTAC Funding Strategies Advisory Committee meeting is Tuesday, December 15, 9:30 a.m. to 11:30 a.m.

### **Adjournment**

With no further business to come before the Hampton Roads Transportation Accountability Commission Technical Advisory Committee, the meeting adjourned at 11:44 a.m.

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Neal Crawford

HRTAC Technical Advisory Committee Chair

# Economic Assessment of the Impact of Tolls on Freight Transportation Costs in the Hampton Roads Region

*presented to*

**HRTAC Funding Strategies  
Advisory Committee**

*presented by*

*Cambridge Systematics, Inc.  
Parsons  
Transystems*

**Final Report**



Transportation leadership you can trust.



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# Study Overview

- Analyze the economic trade-offs between the cost of congestion versus the benefits of transportation infrastructure investments using tolls as a way to pay for the investments
- Focus on competitiveness of freight transportation in the region



# Key Findings

- The cost of doing nothing is higher than the cost of new investments funded with tolls
- The benefits for new investments are greater for non regional trips than for intraregional (local) trips
- While local trips pay a greater portion of the toll burden for new investments their overall costs are still less than doing nothing

# Approach

## 1) Stakeholder Interviews

- ❑ Transportation costs
- ❑ Freight routes and congestion
- ❑ Economic competitiveness factors

## 2) Benchmark assessment (regional competitiveness)

- ❑ Key origin/destination pairs
- ❑ Cost per mile analysis

## 3) Freight Cost Analysis

- ❑ Future cost analysis using travel demand model
- ❑ Congestion Cost broken into four component

# Understanding Tradeoffs



Costs

No build	Build
Transportation/ congestion impacts	Funding/ toll impacts



Benefits

Build
Additional capacity & access



# Future Freight Cost Analysis

## Four Types of Costs:

- **Value of Time (VOT): Cost associated with labor (salary and benefits of workforce)**
- **Vehicle Operating Cost (VOC): Cost associated with vehicle operations (fuel, tires, maintenance, etc.)**
- **Reliability costs: Cost associated with unpredictable delay leading to changes in number of truck turns**
- **Tolls : Cost of tolls per trip (one direction). Assumption is all truck pay a toll.**

# Methodology

- Used HRTPO regional travel demand model to estimate future truck miles and hours traveled for two scenarios
  - » Business as Usual (BAU) or no build
    - HRTAC projects are not constructed
  - » Build with tolls
    - HRTAC projects constructed and funded via tolls

# Estimating the Change in Truck Congestion

Model output: CS analysis of future truck hours for two scenarios

Scenario		Local Trips	Non-Regional Trips	Total
2040 BAU/ No Build	Additional Hours of Delay Daily	5,751	5,309	11,060
	Additional Hours of Delay Annual	2,099,188	1,937,712	4,036,900
2040 Build with Tolls	Additional Hours of Delay Daily	224	199	423
	Additional Hours of Delay Annual	57,093	29,412	86,505

# Cost of Business As Usual – No Build

## 2040 Trucking Costs - Business as Usual (BAU)

	Local Trips	Non-regional Trips	Total
Additional Travel Time Costs	\$ 156,809,340	\$ 144,747,090	\$ 301,556,430
Additional Vehicle Operating Costs	\$ 299,554,130	\$ 276,511,500	\$ 576,065,630
Buffer/Turn Time Costs (Reliability)	\$ 95,795,050	NA	\$ 95,795,050
Additional Toll Costs	NA	NA	NA
<b>Total Additional Trucking Costs</b>	<b>\$ 552,158,520</b>	<b>\$ 421,258,590</b>	<b>\$ 973,417,110</b>

**High Congestion Cost – Labor and vehicle operating  
Poor Reliability - Local trucks get fewer turns**

**Overall Cost Burden:  
57% Local Trips / 43% Non Regional Trips**

# Cost of Building with Tolls

## 2040 Trucking Costs : Additional Capacity and Tolls

	Local Trips	Non-regional Trips	Total
Additional Travel Time Costs	\$ 6,112,650	\$ 5,420,650	\$ 11,533,310
Additional Vehicle Operating Costs	\$ 11,677,050	\$ 10,355,120	\$ 22,032,170
Buffer/Turn Time Costs (Reliability)	NA	NA	NA
Additional Toll Costs (at \$20 toll \$2040, \$7.30 in \$2014)	\$ 505,292,570	\$ 260,302,230	\$ 765,594,800
<b>Total Additional Trucking Costs</b>	<b>\$ 523,082,270</b>	<b>\$ 276,078,000</b>	<b>\$ 799,160,270</b>

**Minimal Congestion Costs**  
**Reliability greatly improves**  
– local trucks make more turns

**Overall Cost Burden:**  
**66% Local Trips / 34% Non Regional Trips**

# Economic Trade-off

	2040 BAU or No Build			2040 Build with Tolls		
	Intraregional	Non-regional	Total	Intraregional	Non-regional	Total
Total Additional Cost Increase	\$ 552,158,520	\$ 421,258,590	\$ 973,417,110	\$ 523,082,270	\$ 276,078,000	\$ 799,160,270
Number Truck Trips	25,264,630	13,015,110	38,279,740	25,264,630	13,015,110	38,279,740
Average Additional Cost per Trip (\$2040)	\$ 21.86	\$ 32.37	\$ 25.43	\$ 20.70	\$ 21.21	\$ 20.88
Average Additional Cost per Trip (\$2014)	\$ 8.19	\$ 12.14	\$ 9.54	\$ 7.76	\$ 7.96	\$ 7.83

**Overall - Average Cost per Truck Trip  
BAU \$ 25.43 versus Build w/Toll \$ 20.88**

# Key Findings

- **The cost of doing nothing is higher than the cost of new investments funded with tolls**
- **The benefits for new investments are greater for non regional trips than for local trips**
- **While local trips pay a greater portion of the toll burden for new investment their overall costs are still less than doing nothing**
- **Freight rates in region are generally competitive with peer ports**
- **Consideration should be given to mitigation of tolling costs such that regional trips do not absorb an unfair portion of the cost of an enhanced transportation network**