

## **AGENDA ITEM #1: HRTPO STRATEGIC CAMPAIGN AND VISION PLAN FOR PASSENGER RAIL: PHASE 1 OVERVIEW**

### **SUBJECT:**

TEMS (Transportation Economics & Management Systems, Inc.), the consultant specializing in passenger rail planning, was secured by the HRTPO and its partner DRPT to evaluate the potential passenger rail service alternative defined by the October 30, 2009 HRTPO Board resolution with respect to both the CSX/I-64 and Norfolk Southern/Route 460 rail corridors.

### **BACKGROUND:**

Phase 1 of the consultant six-month contract is from January 28, 2010 to July 31, 2010. In Phase 1, the TEMS team will evaluate the base case 79-mph/90-mph concept, and establish if there is a case for high-speed rail. In undertaking this work, the TEMS team will work closely throughout the course of the study with the HRTPO and DRPT staff to assess the potential of higher- and high-speed rail as determined by the HRTPO Board resolution.

Phase 1 will include:

1. The **Implementation Plan** will be developed that sets goals, timetables, and arrangements for implementing passenger rail service in the Richmond/Hampton Roads corridors. The Implementation Plan will recommend an action program that sets out the steps that need to be followed to ensure the successful implementation of passenger rail in the Richmond/Hampton Roads corridors.
  - 1a. **Station Development** analysis for public-private partnership including private participation. A key output will be joint development potential at stations and the contributions of the private sector to project funding. Additionally, station stops will be included in defining service scenarios.
  - 1b. Analysis of **Interim Steps** of 79-mph and 90-mph higher speed service on the CSX/I-64 and Norfolk Southern/Route 460 rail corridors including demand, revenue, cost, and subsidies.
2. An extensive **Vision Plan** document will be prepared in Phase 1 that will evaluate the potential for the development of high-speed passenger rail service on the Norfolk Southern/Route 460 rail corridor and the enhancement of the intercity passenger rail service on the CSX/I-64 rail corridor.

The attached document includes a description of the resulting products of Phase 1 as well as the Phase 1 work tasks (Attachment 1).

Dr. Alexander E. Metcalf, TEMS, will provide an overview of Phase 1 to the Steering Committee.

Attachment 1 – Phase 1 Overview

# HRTPO Strategic Campaign and Vision Plan for Passenger Rail: Phase 1 Overview

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HRTPO High-Speed and Intercity Passenger Rail Steering Committee

March 17, 2010 Meeting

Agenda Item #1



## A. PHASE 1 DELIVERABLES

The resulting products of Phase I by the TEMS team will include the following:

1. The **Implementation Plan** will be developed that sets goals, timetables, and arrangements for implementing passenger rail service in the Richmond/Hampton Roads corridors. The Implementation Plan will recommend an action program that sets out the steps that need to be followed to ensure the successful implementation of passenger rail in the Richmond/Hampton Roads corridors.
  - 1a. **Station Development Analysis** for public-private partnership including private participation. A key output will be joint development potential at stations and the contributions of the private sector to project funding. Additionally, station stops will be including in defining service scenarios.
  - 1b. Analysis of **Interim Steps** of 79-mph and 90-mph higher speed service on the CSX/I-64 and Norfolk Southern/Route 460 rail corridors including demand, revenue, cost, and subsidies.
2. An extensive **Vision Plan** document will be prepared in Phase I that will evaluate the potential for the development of high-speed passenger rail service on the Norfolk Southern/Route 460 rail corridor and the enhancement of the intercity passenger rail service on the CSX/I-64 rail corridor.

## B. PHASE 1 WORK TASKS

1. **Data Assembly** – The consultant will assemble data towards the specifications of three major data systems: market database; engineering database; and technology database.
2. **Service Scenarios** – Working closely with the HRTPO and DRPT staff, and as appropriate coordinating with the freight railroads and Amtrak, an initial set of passenger rail service scenarios and interim steps will be defined by DRPT for the CSX/I-64 and NS/Route 460 corridors. The key factors considered by the consultant in defining scenarios include: train frequency; train speed; track speed; station stops; and fares. The scenarios will reflect guidance from DRPT as well as the HRTPO Board resolution for the CSX/I-64 and NS/Route 460 rail services with the goal of optimizing the financial and economic performance of the system. This will include the timing of interim steps as defined by DRPT. The Service Scenarios will reflect a base case service that is appropriate for the CSX/I-64 and NS/Route 460 corridors as defined by DRPT.
3. **Interactive Analysis** – The consultant will perform the Interactive Analysis, which is designed to develop the most efficient and effective alternatives for passenger rail service in the Richmond-Hampton Roads Corridor. This work element will include demand analysis and rail service analysis.

4. **System Forecasts and Outputs** – Using the output from the Interactive Analysis, the consultant will generate base ridership and revenue forecasts, and operating and capital costs for each service scenario.
5. **Financial and Economic Feasibility Analyses** – A public-private partnership analysis will be completed by the consultant. This analysis will include a comprehensive financial analysis; comprehensive FRA approved user benefits (consumer surplus) economic analysis; and community benefit (economic rent) analysis.
6. **Financing and Funding Arrangements** – The consultant will develop financing and funding plans for the rail service. The analysis will consider different ways to generate federal, state, local and private sector for the rail service. Specific issues to be considered include: federal and state match; local funding of stations; private sector roles in provision of services and contracting (e.g., station joint development); and freight railroad contracting and funding options. Additionally, the major structures of the funds plans will be defined.
7. **Institutional Framework** – An assessment will be made by the consultant of the potential institutional arrangements that will need to be developed for implementation of the rail service. A full range of potential institutional arrangements will be assessed and recommendations made on the basis of the roles of different parties, potential financial commitments, cost and revenue sharing, and other organizational and efficiency considerations. Key criteria will include: potential cash flows; administrative and operating costs; legal requirements and related needs (e.g., insurance); ease of implementation; transferability; and pay-off year and financial attributes. The key task will be to identify possible approaches for developing both corridors consistent with DRPT’s recommendations for near term scenarios (79-mph and 90-mph) and the HRTPO Board resolution.
8. **Allocation of Costs and Revenues** – Revenue and cost allocation procedures will be developed by the consultant to show the financial responsibilities of each party along with the timeline for finalizing contractual agreements. Critical issues to be assessed include: cooperative agreements; maximization of private-sector opportunities and contributions; financing mechanisms; and strengthening institutional capabilities.

### C. PRELIMINARY WORKPLAN FOR PHASE 1

Tasks		PHASE 1: Preliminary Vision Plan					
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
<b>Step 1. Study Databank</b>							
Task 1	Study Design	-----					
Task 2	Data Assembly						
	Market Database	=====			-----		
	Stated Preference Survey						
	Sensitivity Data						
	Engineering Database	=====					
	Technology Database	=====					
<b>Step 2. Service Scenarios</b>							
Task 3	Service Scenarios	=====					
<b>Step 3. Interactive Analysis</b>							
Task 4	Interactive Analysis						
	Demand Analysis			=====			
	Sensitivity and Risk Analysis			=====			
	Rail Service Analysis			=====			
<b>Step 4. System Forecasts and Outputs</b>							
Task 5	Ridership and Revenue Forecasts		=====				
Task 6	Operating and Capital Costs		=====				
Task 7	Financial and Economic Feasibility Analysis						
	Financial Analysis				=====		
	Economic Analysis of User / Non-User Benefits				=====		
<b>Step 5. Institutional and Financing Framework</b>							
Task 8	Financing and Funding Arrangements				=====		
Task 9	Institutional Framework	-----					
Task 10	Allocation of Costs and Revenues				=====		
<b>Step 6. Vision Plan</b>							
Task 11	Implementation Plan				=====		
Task 12	Preliminary Vision Plan				=====		
Task 13	Final Vision Plan				=====		
	<b>MEETINGS</b>	●	●	●	●		●
	<b>PRESENTATIONS</b>	▲	▲	▲	▲		▲
	<b>MONTHLY PROGRESS REPORTS</b>		■	■	■	■	■