

Presentation To

HRTPO Steering Committee

Agenda Item #2



HRTPO Strategic Campaign and Vision Plan for Passenger Rail



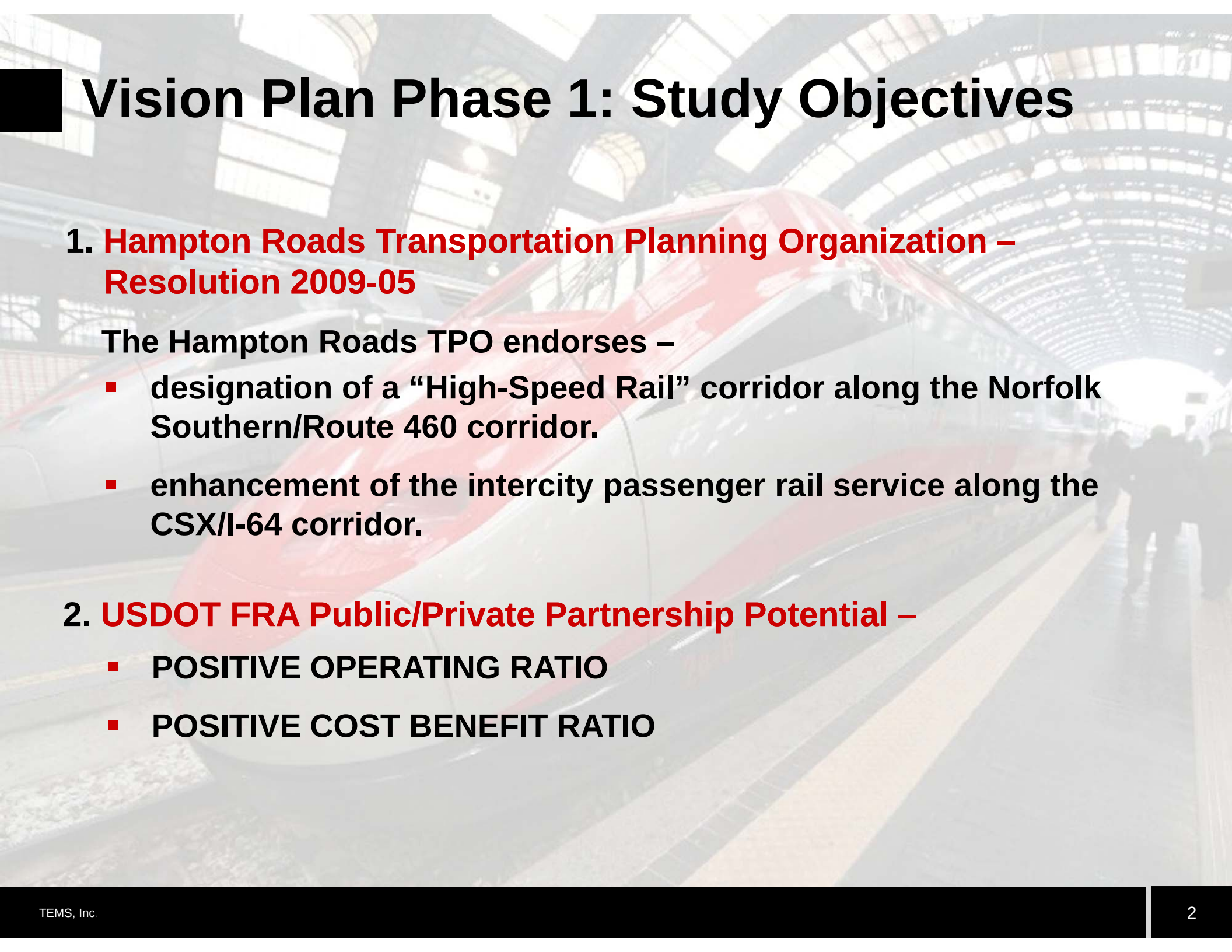
Presentation By

TEMS

Transportation Economics & Management Systems, Inc.

April 21, 2010

		PHASE 1: Preliminary Vision Plan																							
Tasks		Month 1				Month 2				Month 3				Month 4				Month 5				Month 6			
Step 1. Study Databank																									
Task 1	Study Design																								
Task 2	Data Assembly																								
	Market Database																								
	Stated Preference Survey																								
	Sensitivity Data																								
	Engineering Database																								
	Technology Database																								
Step 2. Service Scenarios																									
Task 3	Service Scenarios																								
Step 3. Interactive Analysis																									
Task 4	Interactive Analysis																								
	Demand Analysis																								
	Sensitivity and Risk Analysis																								
	Rail Service Analysis																								
Step 4. System Forecasts and Outputs																									
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																								
Step 5. Institutional and Financing Framework																									
Task 8	Financing and Funding Arrangements																								
Task 9	Institutional Framework																								
Task 10	Allocation of Costs and Revenues																								
Step 6. Vision Plan																									
Task 11	Implementation Plan																								
Task 12	Preliminary Vision Plan																								
Task 13	Final Vision Plan																								
	MEETINGS																								
	PRESENTATIONS																								
	MONTHLY PROGRESS REPORTS																								

A red high-speed train is stopped at a modern train station platform. The platform has a curved, arched roof structure with large windows. Several people are visible on the platform, some standing and some walking. The train is sleek and aerodynamic, with a white stripe running along its side.

Vision Plan Phase 1: Study Objectives

1. Hampton Roads Transportation Planning Organization – Resolution 2009-05

The Hampton Roads TPO endorses –

- designation of a “High-Speed Rail” corridor along the Norfolk Southern/Route 460 corridor.
- enhancement of the intercity passenger rail service along the CSX/I-64 corridor.

2. USDOT FRA Public/Private Partnership Potential –

- POSITIVE OPERATING RATIO
- POSITIVE COST BENEFIT RATIO

Development Steps

Steps	Route	Max Speed	No. of Trains	Infrastructure	Station
Step 1	I-64/CSXT	79 mph	2	Shared Track Schedule Enhancement	Main Street Newport News (existing)
	Route 460/ Norfolk Southern	79 mph	1-3	Shared Track NS	Staples Mill Only Norfolk
Step 2 (DEIS Alt 1)	I-64/CSXT	79 mph	3	Shared Track	Main Street Newport News (existing)
	Route 460/ Norfolk Southern	79-90 mph	4-6	Shared Track V Line	Main Street Bowers Hill
Step 3	I-64/CSXT	90 mph	4-6	Shared Track	Main Street Newport News Downtown/Airport
	Route 460/ Norfolk Southern	110 mph	8-12	Dedicated Track V Line	Main Street Bowers Hill
Step 4	I-64/CSXT	110 mph	6-9	Dedicated Track	Main Street Newport News Downtown/Airport
	Route 460/ Norfolk Southern	150 mph	12-16	Dedicated Electric Track V Line	Main Street Bowers Hill

Train Technologies for Step 1 and Step 2

Steps	Route	Max Speed	No. of Trains	Train Technology
Step 1	I-64/CSXT	79 mph	2-3	Conventional Amfleet 
	Route 460/ Norfolk Southern	79 mph	1-3	Conventional Amfleet 
Step 2	I-64/CSXT	79 mph	3-4	Conventional Amfleet 
	Route 460/ Norfolk Southern	90 mph	4-6	Diesel HST 

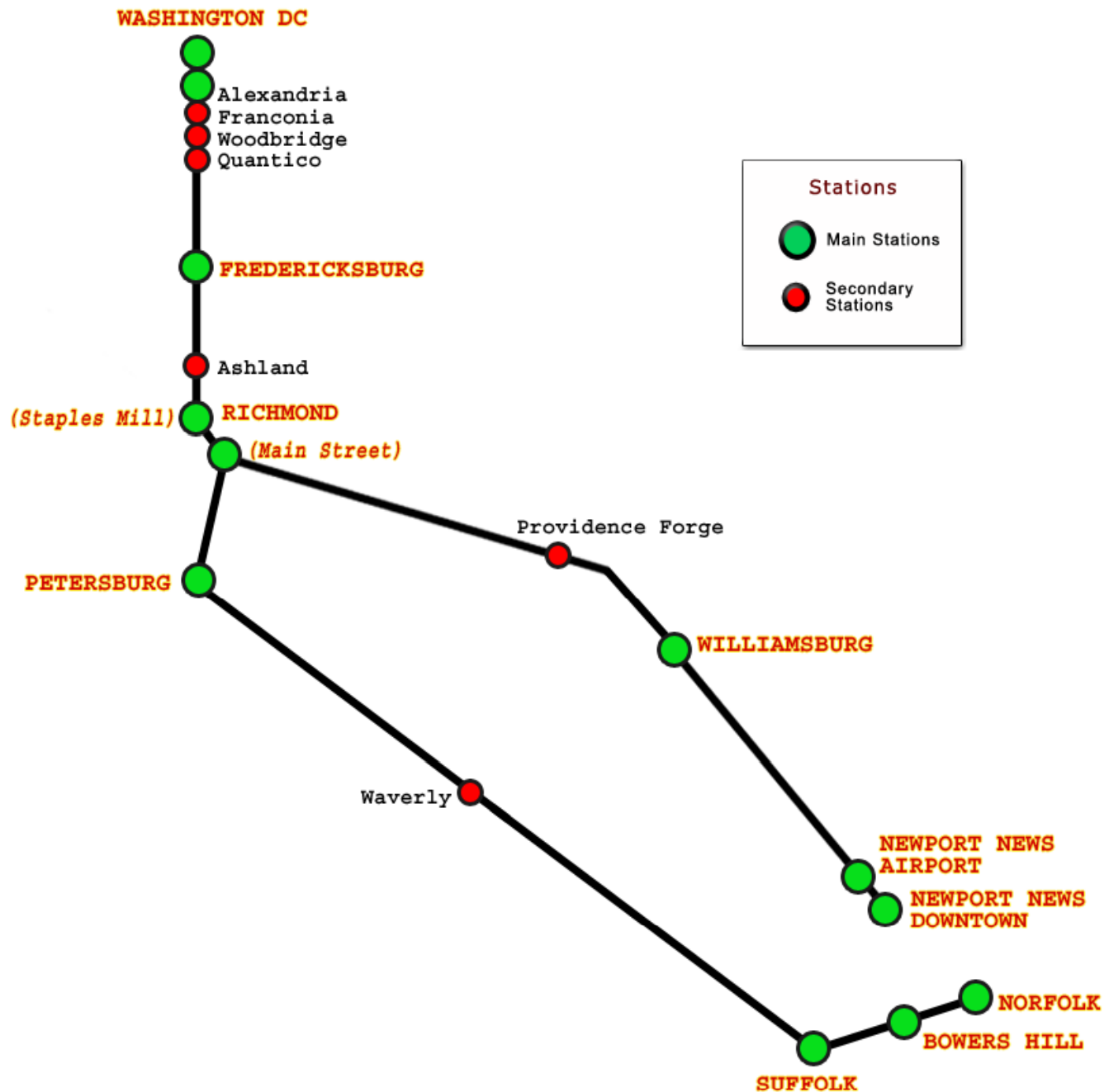
Train Technologies for Step 3 and Step 4

Steps	Route	Max Speed	No. of Trains	Train Technology
Step 3	I-64/CSXT	90 mph	4-6	
	Route 460/ Norfolk Southern	110 mph	8-12	
Step 4	I-64/CSXT	110 mph	6-9	
	Route 460/ Norfolk Southern	150 mph	12-16	

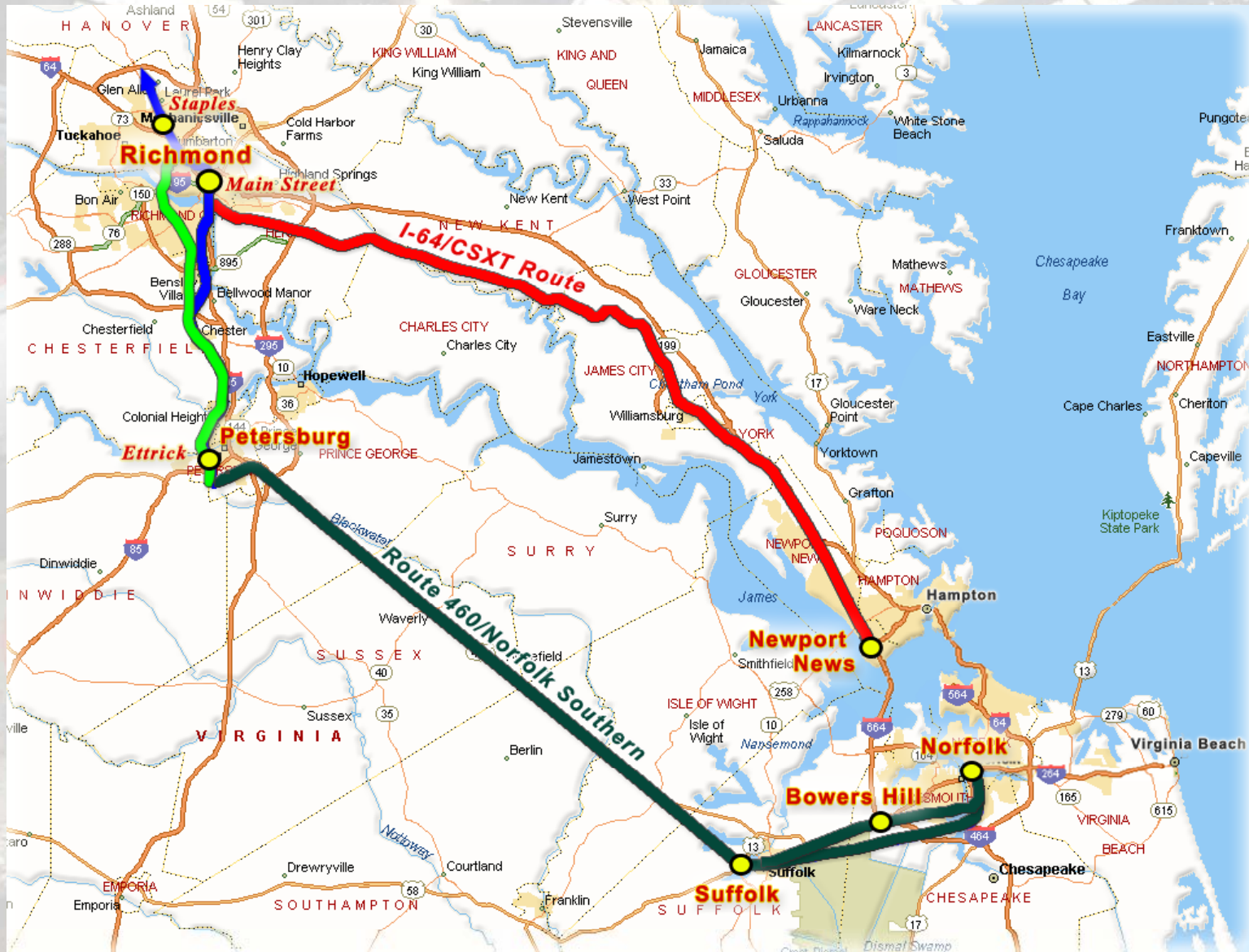
Vision Plan: Steps 1 thru 4 - Stations

Steps	Route	Stations
Step 1	I-64/CSXT	Main Street, Williamsburg, Newport News (existing)
	Route 460/ Norfolk Southern	Staples Mill, Petersburg, Suffolk (temporary), Norfolk
Step 2	I-64/CSXT	Main Street, Williamsburg, Newport News (existing)
	Route 460/ Norfolk Southern	Main Street, Petersburg, Suffolk/Bowers Hill, Norfolk
Step 3	I-64/CSXT	Main Street, Providence Forge, Williamsburg, Newport News: Downtown/Airport
	Route 460/ Norfolk Southern	Main Street, Petersburg, Waverly, Suffolk, Bowers Hill, Norfolk
Step 4	I-64/CSXT	Main Street, Providence Forge, Williamsburg, Newport News: Downtown/Airport
	Route 460/ Norfolk Southern	Main Street, Petersburg, Waverly, Suffolk, Bowers Hill, Norfolk

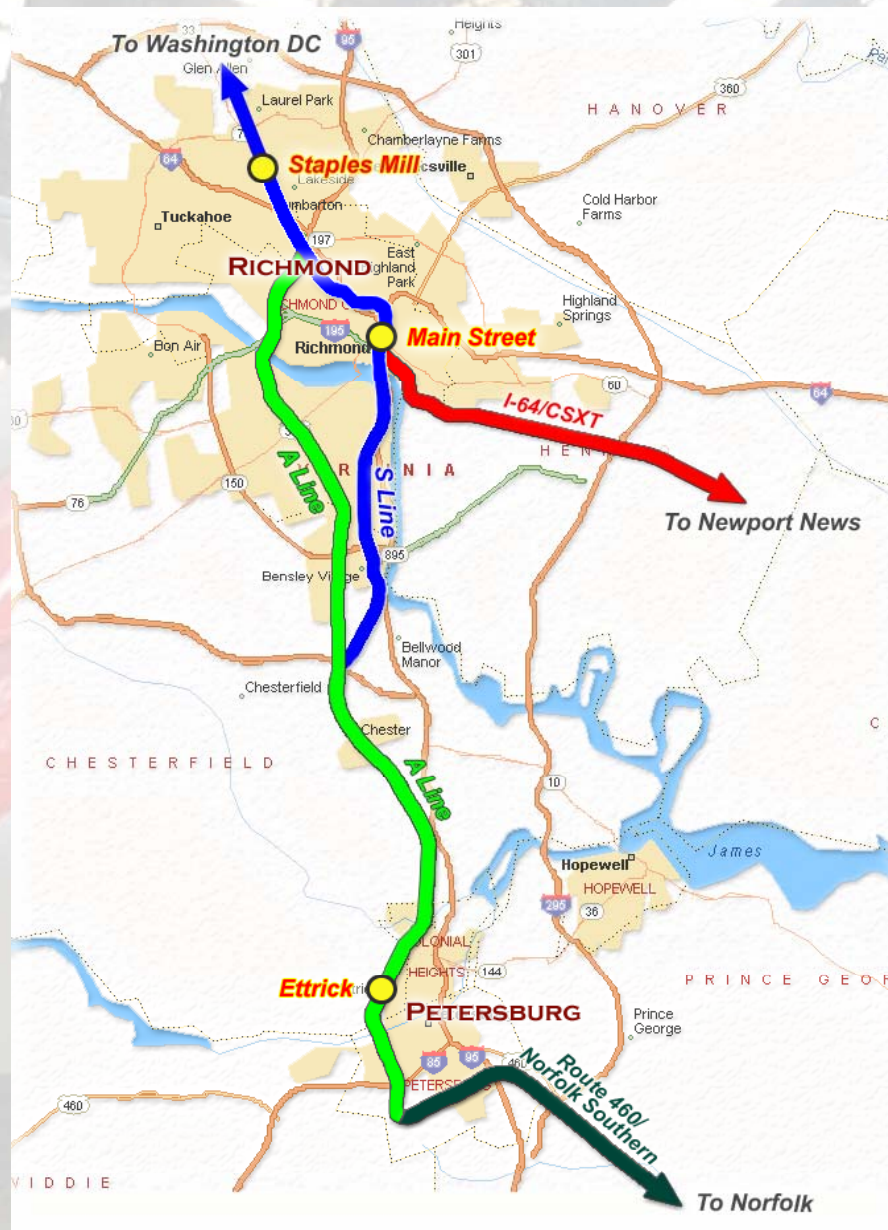
Vision Plan: Station Concept Map



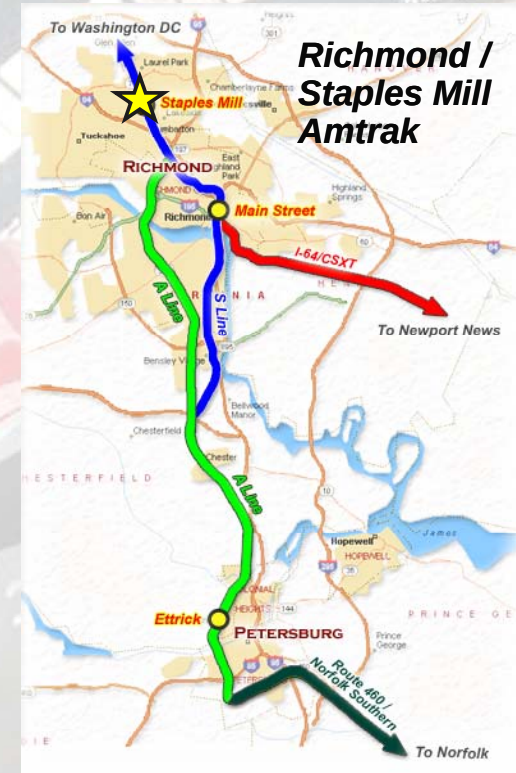
Engineering Database



Richmond to Petersburg



Richmond to Petersburg



Richmond to Petersburg



Acca Yard



Richmond to Petersburg



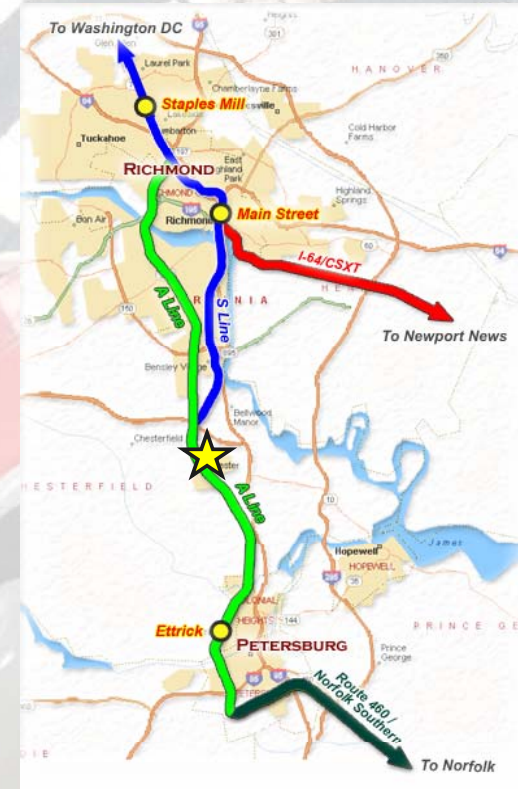
Richmond to Petersburg



Richmond to Petersburg



Richmond to Petersburg



Richmond to Petersburg



Richmond to Petersburg



Ettrick Station



Route 460 / Norfolk Southern: *Petersburg to Suffolk*



Route 460 / Norfolk Southern

Appomattox River Bridge

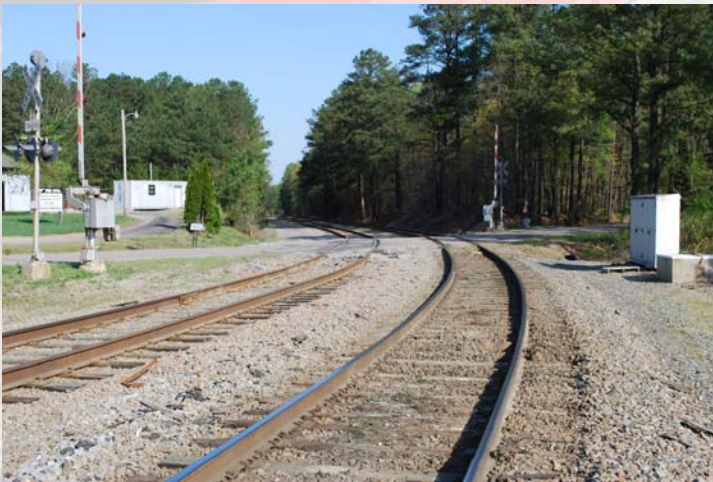
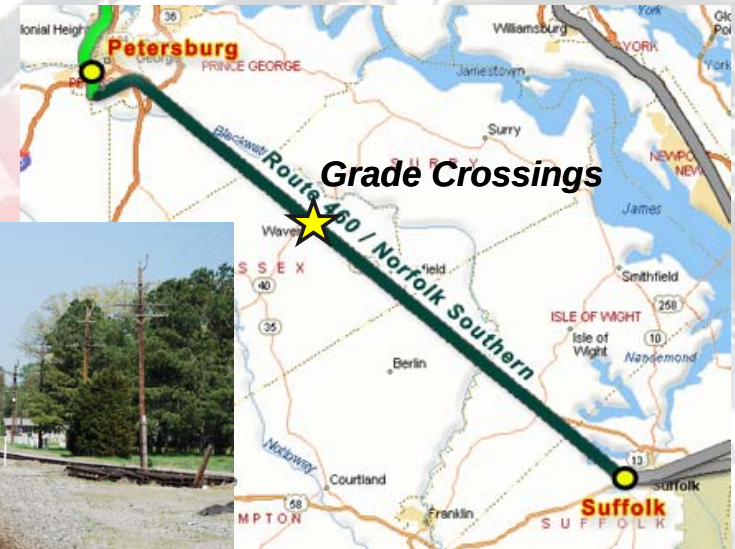


Route 460 / Norfolk Southern

Collier Connection



Route 460 / Norfolk Southern



NS Main Line

Route 460 / Norfolk Southern



Route 460 / Norfolk Southern

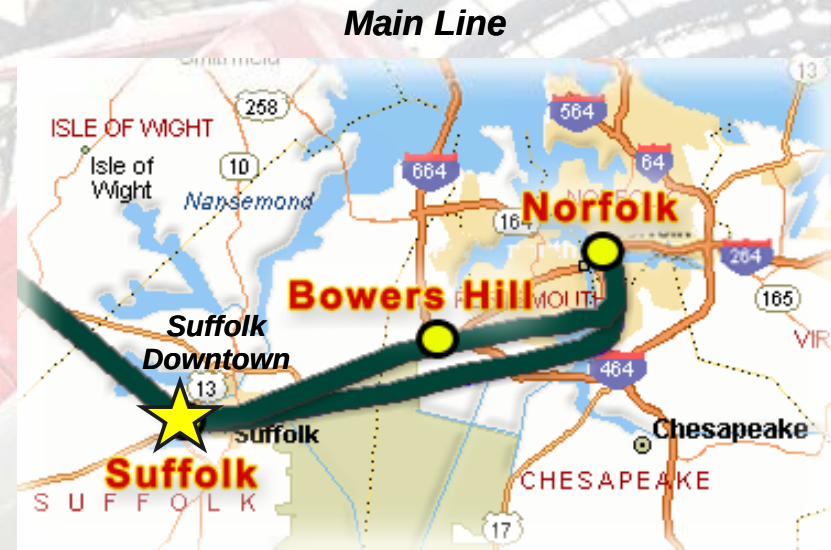
Humped Grade Crossings



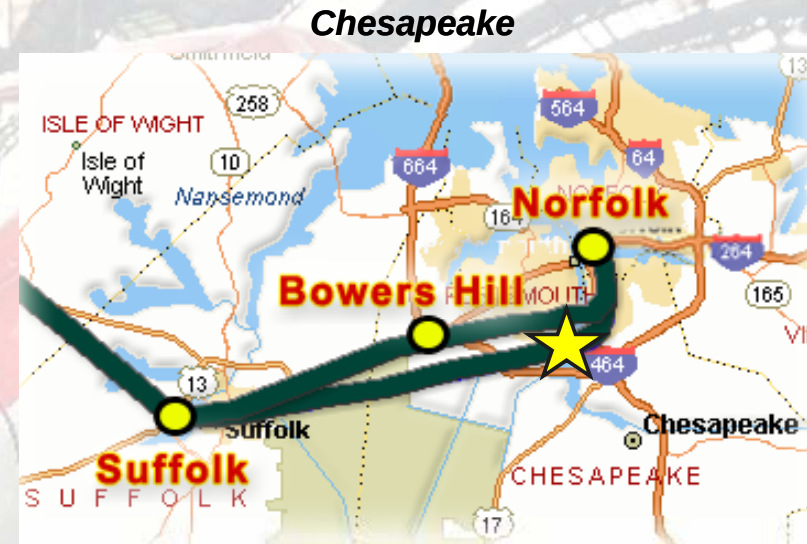
Route 460 / Norfolk Southern



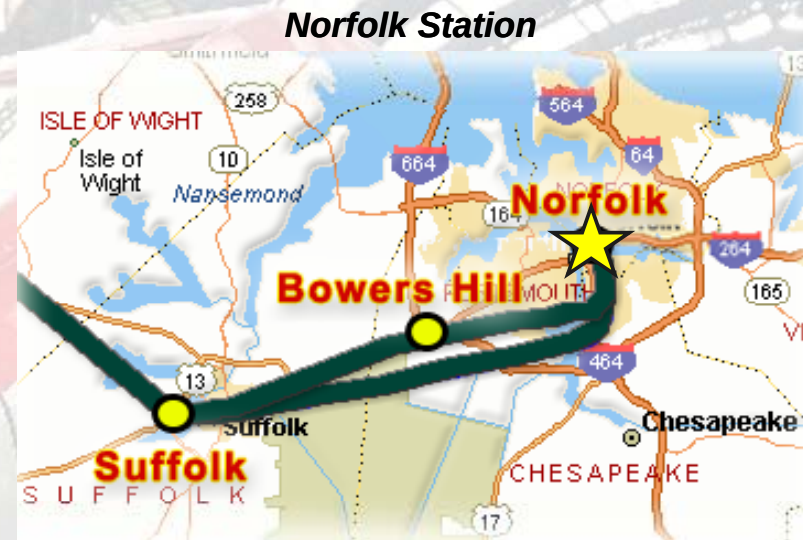
Route 460 / Norfolk Southern: Suffolk to Norfolk



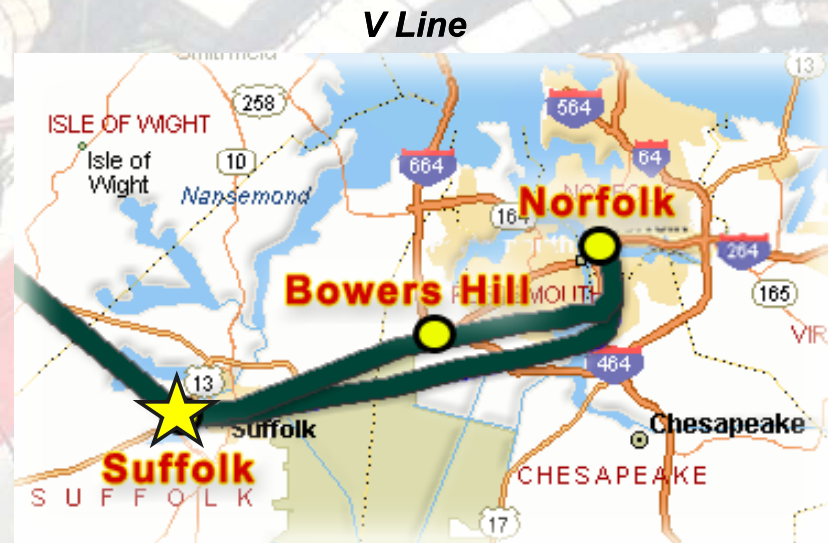
Route 460 / Norfolk Southern



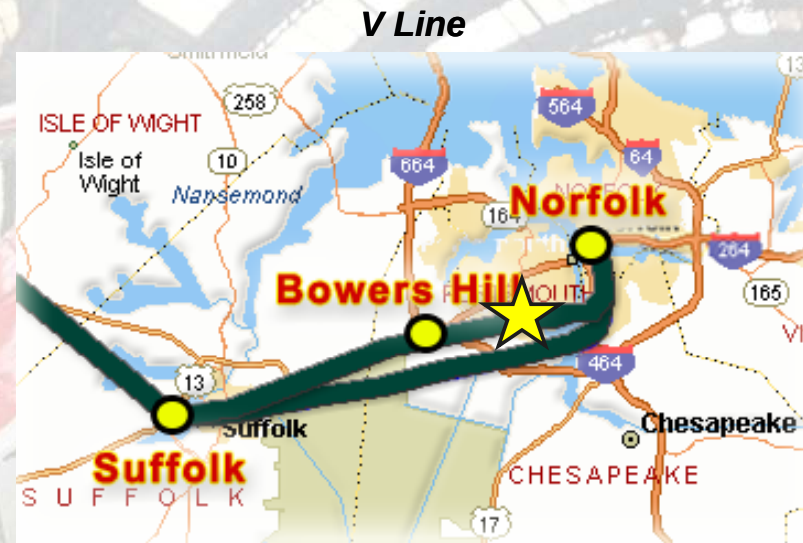
Route 460 / Norfolk Southern



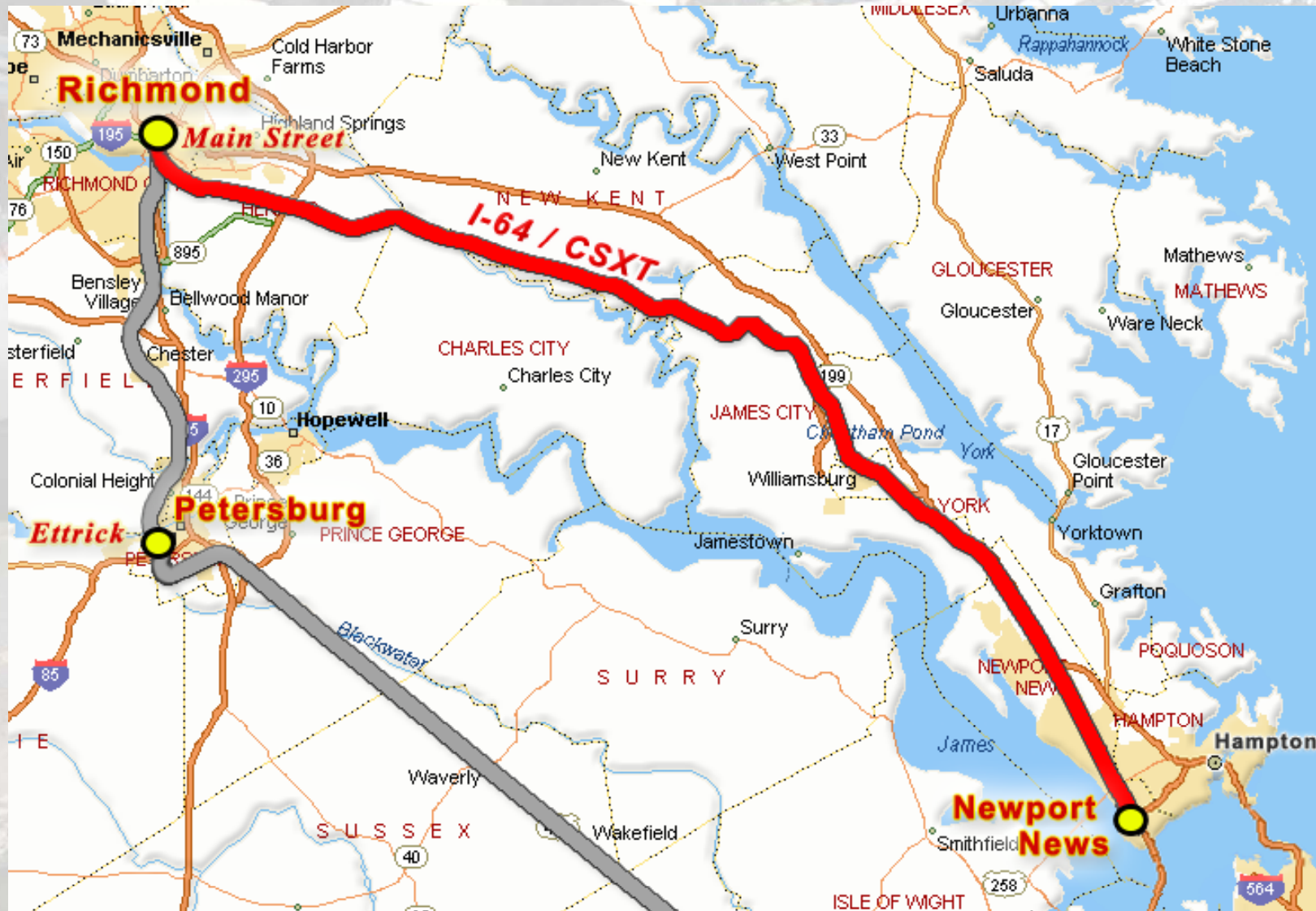
Route 460 / Norfolk Southern



Route 460 / Norfolk Southern



I-64 / CSXT: Richmond to Newport News



I-64 / CSXT



Downtown Newport News



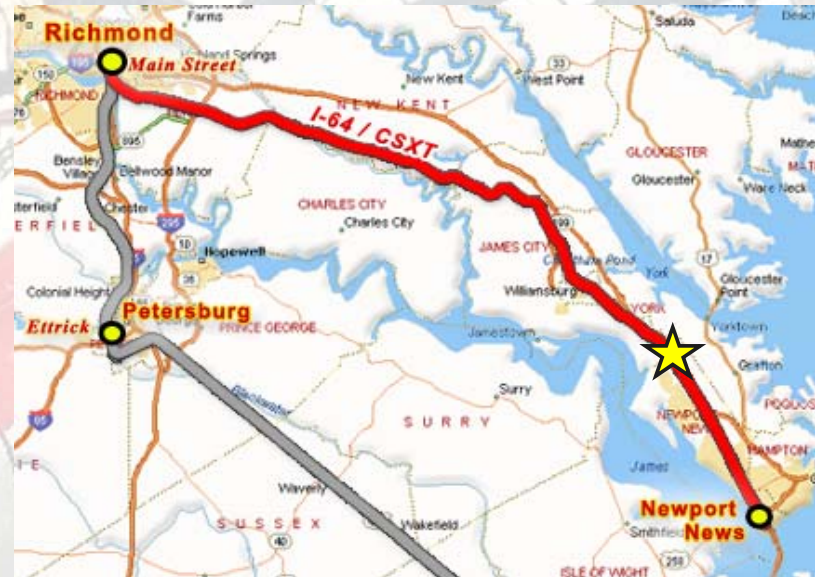
I-64 / CSXT



Amtrak Station Newport News



I-64 / CSXT



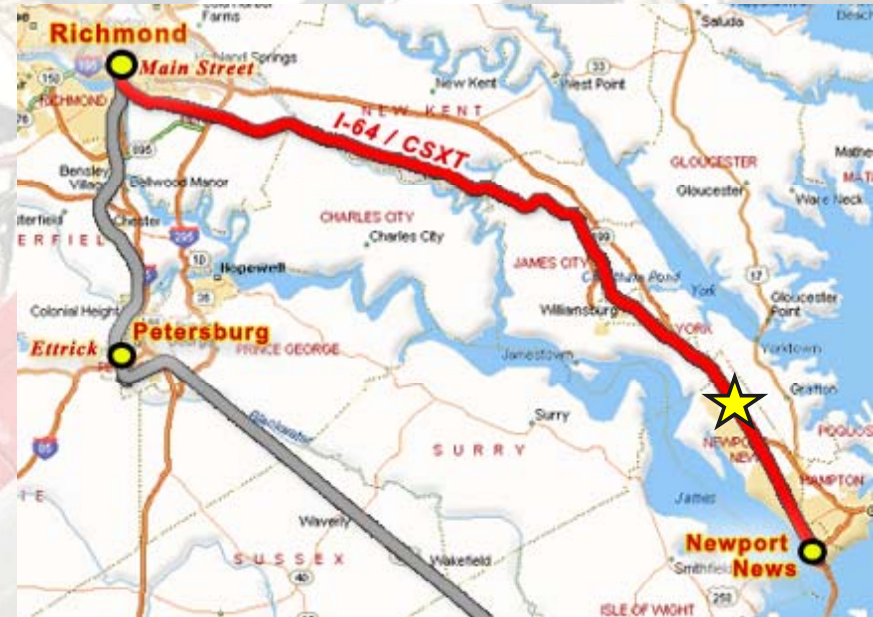
I-64 / CSXT



Lee Hall

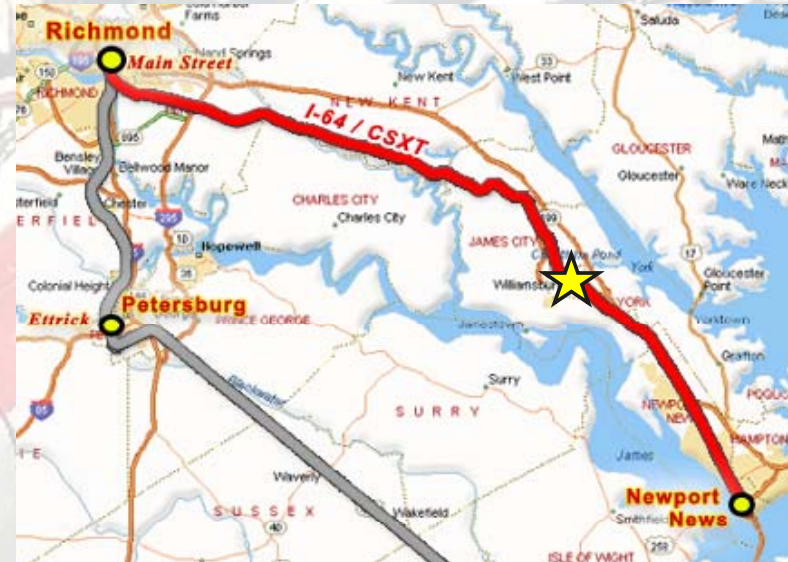


I-64 / CSXT



I-64 / CSXT

Williamsburg Station



I-64 / CSXT



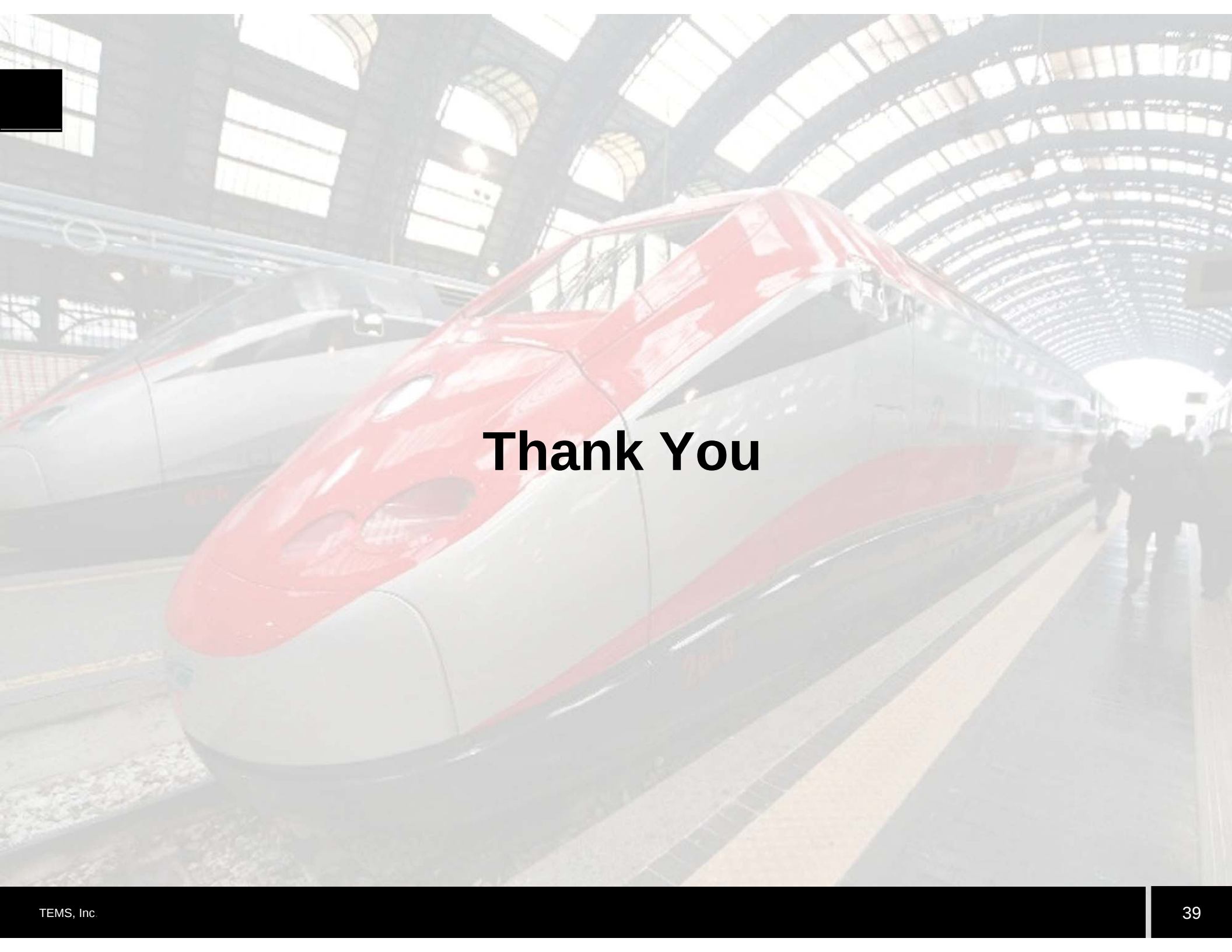
Toano



I-64 / CSXT

Providence Forge



A photograph of a high-speed train, likely a Shinkansen, stopped at a station platform. The train is white with a prominent red stripe along its side and a red nose. The station has a large, arched glass and steel roof. Several people are visible on the platform to the right. The text "Thank You" is overlaid in the center of the image.

Thank You