

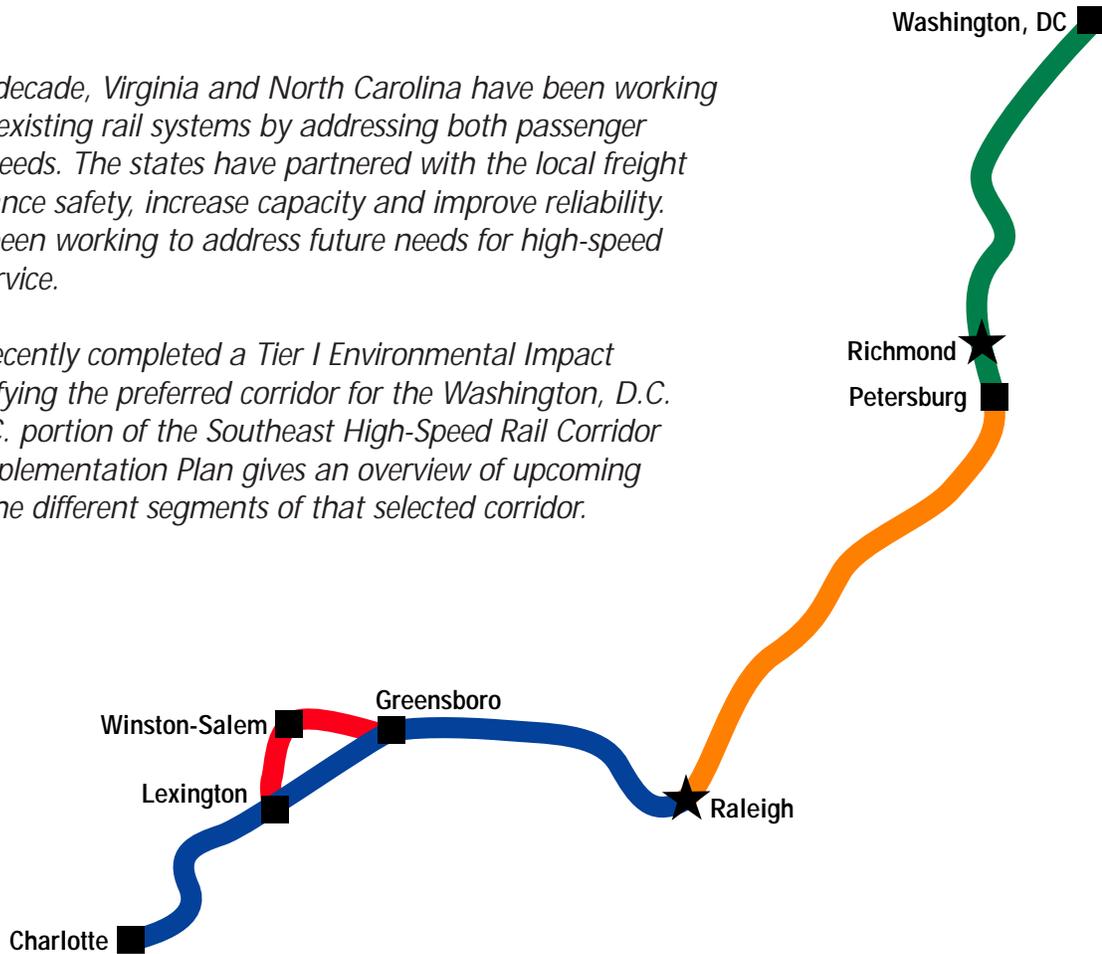
DRAFT IMPLEMENTATION PLAN

for Southeast High-Speed Rail Washington, DC to Charlotte, NC

OCTOBER 2002

During the past decade, Virginia and North Carolina have been working to improve their existing rail systems by addressing both passenger and freight rail needs. The states have partnered with the local freight railroads to enhance safety, increase capacity and improve reliability. They also have been working to address future needs for high-speed passenger rail service.

The two states recently completed a Tier I Environmental Impact Statement identifying the preferred corridor for the Washington, D.C. to Charlotte, N.C. portion of the Southeast High-Speed Rail Corridor (SEHSR). This Implementation Plan gives an overview of upcoming activities along the different segments of that selected corridor.



BACKGROUND

In 1992 the U.S. Department of Transportation designated five potential regional high-speed rail corridors across the country. The Southeast High-Speed Rail Corridor would extend high-speed rail service south, from Washington to Richmond, Va., Raleigh and Charlotte, N.C. The SEHSR corridor was later expanded and is now part of a more comprehensive national plan (*see map on back*).

In 1997, the USDOT reported* that the Southeast High-Speed Rail corridor, when connected with the existing Northeast Corridor, could generate more revenue than any other proposed high-speed rail route in the country. They estimated that the SEHSR route could generate \$2.54 in benefits for every dollar spent to develop and operate it and it would be the only such route to cover its operating costs from passenger revenues.

Establishing a federal/state funding partnership will facilitate project development.

*"High Speed Ground Transportation for America," 1997, USDOT

WINSTON-SALEM CONNECTION

(No passenger service currently operates on this section)

Step 1 Winston-Salem to Greensboro

Development will depend on Piedmont Authority for Regional Transportation (PART) plans for regional rail service. Studies will proceed accordingly.

Time frame: within 5 years

Step 2 Winston-Salem to Lexington

Studies will proceed based on PART plans. Engineering costs and ridership/revenue projections will be adjusted accordingly.

Time frame: within 8 years

WASHINGTON, DC TO PETERSBURG

(Collier Yard)

(Passenger service currently operates on this section)

Step 1

- Improve crossovers
- Add third track as appropriate
- Replace and expand bridges
- Upgrade track to Class V
- Improve Richmond Main Street Station access
- Perform preliminary engineering and environmental work from Collier Yard to Centralia

Time frame: within 5 years

Step 2

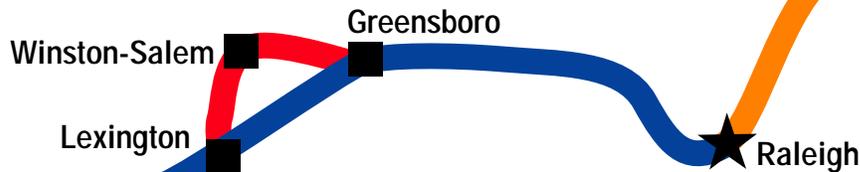
- Add third and fourth track as appropriate
- Improve rail infrastructure from Collier Yard to Centralia

Time frame: within 8 years

Washington, DC

Richmond

Petersburg



RALEIGH TO CHARLOTTE

(Passenger service currently operates on this section)

Step 1

- Signalize between Greensboro and Raleigh
- Improve crossings
- Increase spirals & super elevation

Time frame: within 2 years

Step 2

- Extend sidings
- Replace double track
- Increase spirals & super elevation
- Realign numerous curves
- Improve crossings

Time frame: within 5 years

Step 3

- Add third track as appropriate

Time frame: within 10 years

PETERSBURG (Collier Yard) TO RALEIGH

(No passenger service currently operates on this section)

Step 1

- Coordinate access with CSX
- Prepare Environmental Impact Statement

Time frame: within 5 years

Step 2

- Begin preliminary engineering

Time frame: within 8 years

Step 3

- Restore track and signals

Time frame: within 10 years

Charlotte

WASHINGTON, DC TO PETERSBURG (*Collier Yard*)

Most of this 137-mile segment shares right of way with CSX's main line ("A-Line") that is used by 40-50 freight trains and 10 Amtrak passenger trains daily. Virginia Railway Express (VRE) commuter service also operates over this line between Fredericksburg and Washington. A feasibility study is underway to determine if the former C&O line from Richmond north to Doswell, VA can be developed for passenger rail service.

For several years, the Virginia Department of Rail and Public Transportation, VRE, Metro, CSX and Amtrak have been working together to improve the A-Line from Richmond to Washington to ease traffic flow through this crowded area. The agencies have rebuilt the interlocking near the Potomac River, expanded sidings for the Auto-Train facilities at Lorton, built a third track through Potomac Yard, rehabilitated several bridges, tunnels and stations, and improved signals. The agencies have improved and eliminated various grade crossings and will add a double track bridge at Quantico Creek, as well as additional projects to expand capacity.

Even with these improvements, capacity on this stretch of railroad is still near saturation. To accommodate the freight and passenger growth needs of all users and institute high-speed passenger service, a third track will need to be built in phases between south Alexandria and Richmond. Tracks also will need to be upgraded to accommodate 110 mph speeds.

PETERSBURG (*Collier Yard*) **TO RALEIGH**

This 128-mile route segment was once the Seaboard Air Line Railroad main line ("S-Line") between Raleigh and Richmond. The Raleigh to Norlina portion is an active CSX freight line with two to four daily freight trains. CSX took the Norlina to Petersburg section out of service in 1985 and removed all the track and signals. The first priority for developing this segment is to reach an agreement with CSX to use the corridor. After completing environmental documentation, most of the track infrastructure from Norlina to Petersburg will have to be rebuilt. Reconstructing this portion of track not only will benefit high-speed rail operations, but also will help relieve traffic congestion on CSX's parallel main line ("A-Line").

The Triangle Transit Authority (TTA) plans to construct a double track commuter line along the same right of way from Raleigh toward Wake Forest. The main tracks in this section also will be upgraded to accommodate higher speeds and a train control signal system will need to be installed.

RALEIGH TO CHARLOTTE

This 174-mile portion of the SEHSR route is owned by the North Carolina Railroad (NCRR) and operated under a trackage rights agreement by the Norfolk Southern Railway (NS). The Greensboro to Charlotte section is Norfolk Southern's busiest rail line in the state with up to 40 freight trains a day. Four to six passenger trains also run between Raleigh and Charlotte and three or more transit authorities could eventually share portions of this right of way. In addition, CSX freight trains run between Cary and Raleigh.

Significant stretches of double track were removed between Charlotte and Greensboro in the late 1950s to save maintenance costs. These single-track sections greatly hinder freight flow and delay passenger trains. To provide sufficient track capacity and improve schedule reliability, the double tracks will need to be replaced and curves realigned. Although the Greensboro to Raleigh segment is not as busy, this single-track line also needs improvement as it is very curvy, lacks train signals and adequate passing sidings.

The NCDOT, NCRR and NS are now constructing a \$24 million improvement program that will add a train control system, install some double tracks, extend several sidings, and realign and super elevate curves so that trains can operate at higher speeds. These improvements are a building block to higher speed operations. Speeds up to 110 mph are possible but would require stretches of dedicated third track to separate freight and high-speed passenger trains for safety.

WINSTON-SALEM CONNECTION

Service to Winston-Salem would be provided over the Norfolk Southern "K-Line" between Greensboro and Winston-Salem and the Winston-Salem Southbound (WSSB) from Winston-Salem to Lexington. Both lines carry two to four freight trains per day and have complex engineering and environmental issues that must be resolved before either line can be used for passenger service.

The Greensboro to Winston-Salem line has higher priority for improvement because the Piedmont Authority for Regional Transportation (PART) has chosen this as its first commuter rail route. Studies will focus on developing rail service in this narrow right of way and eliminating multiple grade crossings. The NCDOT and PART will work together to plan and develop joint transit and intercity passenger use in this segment.

Future passenger use of the WSSB line would allow for a better north-south flow of service through Winston-Salem, but would involve completely rebuilding and reconfiguring the track to intersect with the NCRR in Lexington.

STATIONS

North Carolina and Virginia have begun rehabilitating or expanding many passenger stations during the past decade. Historic stations have been rehabilitated in Salisbury, High Point, Greensboro, Raleigh, Main Street Station in Richmond, Fredericksburg and Alexandria. Conceptual studies have been completed for the Winston-Salem Union Station renovation.

However, the most challenging projects are those multi-modal stations that facilitate seamless transfer among the various modes of transportation. Richmond's Main Street Station is one example. The three-phase renovation project for the station that serves the central city will be completed in 2006.

In North Carolina, planning has just begun for the new Raleigh multi-modal station, but elements of it and the Durham multi-modal station must be completed before TTA begins service in 2007. Renovation of the transit portion of the historic Greensboro station is almost complete, while rehabilitation of the rail passenger portion is now underway. One of the largest projects in development is the new Charlotte multi-modal station in the uptown business district. Design and property acquisition have begun, with completion anticipated by 2008.

EQUIPMENT AND SERVICE IMPROVEMENT

While infrastructure improvements are critical to high-speed rail development, new train sets also are necessary to bring high-speed passenger rail service to the Southeast.

At least eight high-speed train sets will be needed for service between Charlotte and Washington, D.C. Each train would have a capacity of about 280 passengers in first class and coach, with space for 24 additional passengers in lounge and dining facilities. The train would be powered by two high-speed locomotives (one at each end).

Rail travel between major cities in North Carolina and Virginia, as well as to the population centers along the Northeast Corridor, would be much more convenient and reliable. The high-speed trains, coupled with major infrastructure and capacity improvements, would reduce travel times between Raleigh and Charlotte to between 2 – 2.5 hours. Travel time between Richmond and Raleigh would be shortened to between 2.5 – 2.75 hours. In North Carolina, additional round trips would be added between Raleigh and Charlotte.

As improvements are made and travel time is reduced, ridership along the SEHSR corridor will increase and frequencies will be added. Service expansion to Hampton Roads, VA, Greenville/Spartanburg, S.C., Atlanta and Macon, GA also are being studied.

HIGH-SPEED RAIL CORRIDORS

