# Intercity Higher Speed Rail in Virginia and North Carolina: A high-performance linkage to the Northeast Corridor (NEC)

Growing regions require sustained investments in metropolitan and intercity transportation in order to remain competitive with the rest of the world and to preserve our quality of life. The emerging Southeast High Speed Rail (SEHSR) corridor will create faster and more convenient travel options between Charlotte, Greensboro and the Piedmont Triad area, Durham, Raleigh, Richmond, Hampton Roads, Northern Virginia, Washington, D.C., and the Northeast Corridor (NEC).

A key priority is to complete the Richmond-Petersburg-Raleigh higher speed rail shortcut that will reduce nearly two hours of travel time from the existing routing, "Connect the Capitals" of North Carolina, Virginia, and the nation, join together the twin urban "job crescents" of VA and NC, link to the Northeast Corridor, expand intermodal freight rail options, and position the markets in the southern mid-Atlantic for ongoing prosperity.

The new Richmond-Raleigh link will have 86 MPH average and 110 MPH top speeds for more than 100 miles south of Petersburg — representing some of the fastest average passenger rail operating speeds in the USA and enabling door-to-door travel times that will be competitive with or faster than driving or flying among NC, VA, and DC. Upon opening of this new connection, Southeast corridor operating revenues are expected to exceed expenses, providing the basis for private operation as a concession without any public subsidy, while increasing revenues for the Northeast Corridor by more than 15%. Federal funding and/or public-private partnerships will be required for right-of-way acquisition and construction of this key interstate linkage.

With essential corridor capacity improvements within the state now funded, North Carolina can also examine the potential for implementing Metro*Express*** passenger rail service within the state.** Metro*Express* operation could offer faster, limited stop service for some new trains, enabling reduced trip times of 2h 30m from Raleigh to Charlotte that will be very competitive with driving. These new service options would not require any track or crossing improvements beyond those included in the recently approved $500m+ federal funding awards.
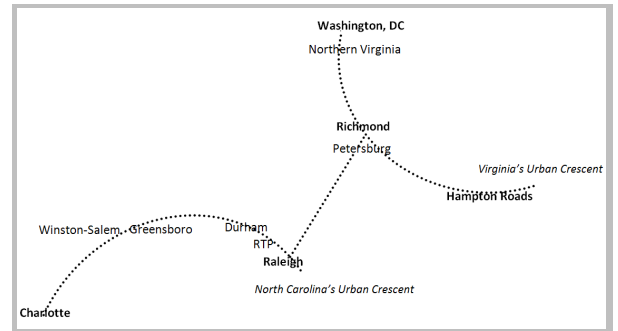
Quick facts

- The Raleigh-Richmond link received $4m in federal funding in May 2011 to finalize environmental and ridership studies, and the Richmond-Washington link received $44m in federal funding in Sept. 2011 to advance environmental work

- Trip times from Raleigh to Washington, DC will be around four hours upon opening of the Raleigh-Richmond shortcut

- The higher speed rail route will link to the Northeast Corridor and enable a connection to Hampton Roads via Petersburg, with a new passenger rail link from the Washington and Richmond areas to Hampton Roads open by 2013

- All crossings will be rerouted or bridged between Petersburg and Raleigh, creating a completely "grade-separated" corridor for better transportation safety and operations, reduced emissions, improved network reliability for both passenger and freight travel, and a basis for future service improvements

- Recent federal funding awards for North Carolina will enable the capacity for new potential "Metro*Express*" service concepts between Charlotte and Raleigh while improving on-time reliability from 74% to 80% or greater

- Building sufficient infrastructure to enable more train frequencies will enable operations with a balance of premium services while also extending service to more communities across North Carolina's urban piedmont crescent

- Vertical clearances from Washington to Charlotte will allow for future electrification and thus higher speeds; the clearances will also allow for double-stacking of intermodal freight operation

- Farebox recovery for the existing *Carolinian* service to Charlotte-Raleigh-Richmond-Washington-New York exceeded 78% in 2010 — even with a routing that is more than 30 miles longer than the proposed Richmond-Raleigh shortcut