

Executive Summary

This report is the final component of a multi-year transit feasibility study conducted by the Volpe National Transportation Systems Center on behalf of the five Towns of the East End. The initial transit concept under evaluation, a proposed Coordinated Rail-Bus Network, had its origins in the Sustainable East End Development Strategies (SEEDS) process as a means of improving local mobility. During the final stages of SEEDS, the concept was developed into a more comprehensive transit proposal by a local nonprofit advocacy group, Five Town Rural Transit, Inc. (5TRT). Using funds made available from a Shared Municipal Services Incentive Grant, the five Towns signed an agreement with the Volpe Center in 2007 for an external evaluation of this proposal.

In conducting its research and analysis, the Volpe Center team has been guided by a Technical Advisory Group (TAG), consisting of members of the East End Transportation Council and of 5TRT. Over the course of the study, the Volpe Center has (1) inventoried existing transportation conditions; (2) examined the basic technical feasibility and cost-effectiveness of the proposed East End rail-bus network, using the service parameters specified by the TAG; (3) worked jointly with the TAG to develop alternative transit concepts for comparison; (4) conducted additional service planning for the hybrid transit service concept that was ultimately selected; and (5) prepared a final report that focuses on the steps remaining on the path to implementation, particularly institutional and financial issues.

At a regional transportation forum held on April 17, 2009, staff from the Volpe Center presented interim findings to members of the TAG, local elected officials, and members of the public. In discussions at this Forum and in subsequent meetings with Town Boards, it became clear that differences in population density, travel patterns, and local priorities precluded the development of a single consensus transit concept that would apply to the entire East End region. Instead, the Towns on the South Fork generally preferred the Coordinated Rail-Bus Network, while the Towns on the North Fork generally preferred the alternative that had been developed for comparison, the Flexible Transit Network, which is focused on incremental bus and rail improvements. As such, this report is based on a so-called “Dual Concept” approach, with transit services along the lines of the Coordinated Rail-Bus Network concept on the South Fork and the Flexible Transit Network on the North Fork.

Details of the Dual Concept Transit Service

On the South Fork, most existing Long Island Rail Road train service and Suffolk County Transit bus service would be replaced by a coordinated rail-bus network. Small shuttle trains would operate on the line between Speonk and Montauk, running roughly every 30 minutes during peak periods and every 60 minutes at other times. Four stations on the line would be re-opened: Quogue, Southampton College, Watermill, and Wainscott. Twelve bus routes would operate on coordinated timetables to bring passengers to and from the stations and to connect the train service with communities beyond the rail lines. In addition, seven smaller demand-response vehicles would be used to provide additional local mobility and station access. Depending on community needs, these demand-response services could encompass a range of service concepts, from door-to-door service by reservation to

“flex” routes that operate on a defined route, but with the capacity to make deviations to pick up or drop off passengers. These more flexible services are designed to expand the reach of transit to people who are not able to use conventional public transportation. Service would run for approximately 18 hours per day in season, and 14 hours per day off-season, with the “seasons” each defined as roughly 182 days per year.

On the North Fork, the existing route structure and service concept would be kept largely intact, but there would be significant improvements to the frequency of service and expanded hours of operation, including Sunday/holiday service on all routes. The S-92 route would continue to be the primary route for much of the North Fork, and S-92 service would be expanded to run as often as every 15 minutes during peak periods, and as late as 12:30 AM during the summer. The 8A would serve downtown Riverhead and the S-58, S-62, and S-66 would connect Riverhead with points west. The S-96, a new route proposed by SCT as part of its recent service study, would connect Greenport to Riverhead and the Tanger Outlet Center.

Another important component of this concept is a set of flex and/or demand response services that would be added in Wading River, Southold, Cutchogue-Mattituck, Greenport, and Riverhead to provide connections to areas that are beyond the fixed-route buses. A new express bus service would also run roughly every 2 hours from Riverhead (or further east) to the Ronkonkoma train station and Islip-MacArthur airport. The North Fork concept also includes the potential for incremental improvements to rail service, such as converting an existing deadhead run to Greenport into revenue service and adjusting timetables to accommodate later-evening returns from New York City and intra-island commute patterns.

Costs and Ridership

The proposed Dual Concept system would be technically feasible provided that significant investment is made in upgrading the existing rail infrastructure, including the construction of new passing sidings, the installation of Centralized Traffic Control. Four rail stations would need to be rebuilt and made accessible. New bus and rail vehicles would also be needed, though it may be possible to use portions of the existing fleet on an interim basis as the service is phased in. Total upfront capital costs are estimated in the range of \$117-\$148 million. Beyond the upfront capital costs, annual costs of operations and maintenance are estimated at \$44 million per year based on the proposed vehicle-hours of service. Depending on how the institutional arrangements are structured, part of the annual costs could be offset by savings through more effective coordination and consolidation of the many Human Services transportation programs in the region.

Ridership estimates for the system are inherently difficult to generate because of the substantial changes that are proposed not only for the *level* of transit service but also the overall route structure. An initial orders-of-magnitude estimate was produced using ridership on the current system in the East End (roughly 600,000 bus passengers and 400,000 rail passengers per year) and findings from the

literature on the elasticity of transit demand to service provision. These estimates were cross-checked against the actual ridership figures from the South Fork Commuter Connection, a recent temporary service expansion that, while not considered a test of the rail-bus network concept, at least offers some insight into the public's likely response to additional transit service. Drawing on additional modeling work from SEEDS, a ridership range of 1.3 million to 3.1 million passengers per year was estimated for the coordinated rail-bus network [see Appendix B for further detail]. The Dual Concept system has a comparable level of service and would be expected to have similar ridership levels. Ridership will depend strongly on the supporting strategies that are implemented by Towns and Villages, particularly pedestrian access to stations, transit-oriented development, and transportation demand management. These strategies are discussed in more detail in Section 5.

Next Steps

Sections 3 through 7 of this final report summarize the major steps toward implementation of the proposed East End transit system, including institutional and financial options, fare collection considerations, supporting strategies at the Town and Village level, and environmental issues. Overall, moving toward implementation means pursuing four main "tracks" of activity:

- Institutional and financial track: In order to move beyond the analytical stage, the East End region will need to come to a political consensus on the entity (or entities) that will build, operate, maintain, and manage the Dual Concept transit system, and on the financing mechanisms that will be used for its capital and operating costs. This report has identified a spectrum of options and the associated advantages and disadvantages of each, ranging from no institutional change through to the establishment of a new Regional Transportation Authority for the East End, with intermediate possibilities such as paid supplemental service or a regional council.

Options that involve more local control over transit services generally also entail more financial risk, while those closer to the status quo are unlikely, in the current fiscal and political environment, to lead to implementation of the desired transit service levels. Certain options, such as the creation of a new transit authority, will require state legislation and related actions such as designation as a federal-aid funding recipient. Section 3 summarizes the major Federal and State programs for which the East End system may be eligible. Although there are several potential sources of Federal funding, the relative size of the programs and the restrictions on their use mean that non-federal sources of funding must also be identified, particularly for annual operating costs.

- Environmental track: Environmental review is a requirement for most major transportation projects receiving Federal or State funding. This process ordinarily begins with scoping, identification of the purpose and need of the project, and the development of alternatives. Depending on the outcome of the initial analysis, more detailed review may be required.
- Technical track: More sophisticated travel demand modeling will be needed to estimate ridership and revenue with more precision and to identify broader effects on regional traffic and commuting

patterns. Preliminary engineering work is also required to assess the state of existing track, stations, bridges, overpasses, and grade crossings; develop signaling and communication requirements; identify maintenance needs and potential facility locations; and assess vehicle options. Based on the outcomes from this work, the project could move forward with service planning, facility design and cost estimation, a procurement process, and ultimately with construction and the start of transit operations.

- Public outreach track: Extensive outreach will be needed to explain the purpose and need of the transit system, the institutional structures and financial mechanisms that are envisioned to support it, and the timeline for implementation. Existing transit riders will need information about how route and service changes (and any changes to fares or the fare collection system) will affect them, and non-riders will benefit from information about the new transit options that will be available. Residents of abutting properties and other areas potentially affected by construction activities should also receive information tailored to their concerns. Towns and Villages also need an opportunity to study and implement policy changes, such as updated parking regulations or TDM programs, that respond to the changes in the regional transit system.

Although each of these tracks can run in parallel for some period of time, they will ultimately need to become part of a coordinated planning process that begins with an Alternatives Analysis, moves through Preliminary Engineering and Final Design, and then to Construction and Operations. There continue to be several unknowns, particularly regarding the future institutional structure for the Dual Concept transit system, that make it impossible to establish a precise timeline for implementation. As a guide, a typical transit project of this scale would require 1-2 years for further study of alternatives and incorporation into the regional long-range plan; then 2-3 years for engineering and environmental review; and finally 3-7 years for final design, procurement, and construction before the start of service. These phases are described in more detail in Section 7, along with some possibilities for interim transit service improvements such as extended hours for current bus services, improvements to rail timetables, and the implementation of supporting technologies such as transit signal priority. Given the time necessary for full implementation, these options for interim service should be given strong consideration as viable ways of improving service in the near-term and building the transit ridership base.