

7.0 RECOMMENDATIONS

The purpose of the Alternatives Analysis phase of the project is to evaluate potential alternative transit investments to arrive at a recommendation for a preferred alternative. As detailed in this study, four alternatives were evaluated. Along with the technical evaluation, input from participating agencies shaped the analysis and became an important indicator of project feasibility. This section reviews the results of the alternatives evaluated as part of the Pike Transit Initiative and outlines the study recommendations.

The size of the potential project combined with the capabilities of potential sponsors to fund the investment has a great effect upon the recommended course of action. In this case, the costs of the BRT and Streetcar Build Alternatives were found to be large compared with the likely availability of local and federal funding. Driving factors in the analysis include providing sufficient transit capacity to accommodate corridor employment and residential growth projections, along with local needs for a transit investment that serves as a catalyst for community investment and redevelopment.

Based on the analysis conducted and input received, the preferred alternative for Columbia Pike should be a small-scale project that could be developed through local sponsorship and minimum federal participation. The project should be advanced in keeping with federal requirements so that it may be kept eligible for federal funding, either under the emerging Small Starts funding program, or within the New Starts funding program where an early local investment might be applied as the local match for a later, larger federal project.

The Pike Transit Initiative study team recommends that the Modified Streetcar Alternative be carried forward as the preferred alternative into the next phase of the project development process (preliminary engineering and environmental review).

7.1 TECHNICAL EVALUATION PROCESS

7.1.1 Summary of Evaluation Results

The alternatives evaluated were:

1. Baseline Alternative
2. BRT Build Alternative
3. Streetcar Build Alternative
4. Modified Streetcar Build Alternative

As described in Sections 5 and 6, the evaluation of the initial three alternatives and their potential impacts led to the consideration of a fourth alternative that would combine some of the benefits seen in the other alternatives for a lower overall cost. Measuring the Build Alternatives against the Baseline and against each other, several key issues emerge.

Costs vs. Transportation Benefits

The forecasted ridership difference between the BRT and Streetcar Alternatives is relatively small, whereas the cost difference would be more significant. FTA comparisons of candidate projects emphasize the measure “cost per transit user benefit.” Where transit user benefits are concerned, the BRT Alternative would be a more efficient investment. However, most of the transit user benefits achievable under the BRT Alternative could also be achieved by adjusting the Baseline Alternative to better match the demand for service. This may include adoption of more limited-stop service, and it may involve the addition of bus capacity through articulated vehicles or more frequent service along certain routes. However, to be effective in providing sufficient passenger capacity for future system growth, BRT provides only temporary relief with little room for service expansion before requiring significant investment in exclusive running way improvements, which would, in turn, constrain available capacity for general auto travel in the corridor.

Another factor FTA uses to compare candidate projects is their potential effects on traffic congestion. According to the traffic analysis, none of the alternatives would reduce congestion appreciably. As forecasted through auto travel times and intersection levels of service, the BRT and Streetcar Build Alternatives would not have an appreciable positive effect on automobile movement through the corridor as compared to the Baseline Alternative. The Modified Streetcar Alternative shows a slight improvement in traffic performance over Baseline conditions while providing sufficient capacity for future system growth.

Costs vs. Community Benefits

Guidance from the Policy Advisory Committee (PAC) and ongoing participation in the Pike Transit Initiative by the Columbia Pike Revitalization Organization has reinforced the stated project intent of supporting community and economic development. As plans for the next generation of development along Columbia Pike move forward, citizens, planners and community leaders have expressed desire for a transit system that supports revitalization of pedestrian activity and reinforces the corresponding ‘main street’ environment envisioned for the Pike. A streetcar investment would most clearly advance this set of local objectives, as it would be more broadly recognized as a premium, lasting investment in the Columbia Pike Corridor.

7.1.2 Policy Guidance Received

Policy Advisory Committee

In planning for improved transit service along Columbia Pike, the PAC has declared the need for a balance between achieving competitive levels of transit system user benefits and supporting the potential economic benefits of a permanent transit investment along Columbia Pike. In general, the PAC favors a transit investment such as the Modified Streetcar Alternative, that could be implemented successfully as a starter project, but that could potentially be extended in the future as corridor development plans are realized.

Virginia Department of Transportation

The Virginia Department of Transportation (VDOT) has specified minimum acceptable design standards for Columbia Pike. Any changes per Arlington County’s Street Space Planning Task Force recommendations would be required to go through the state’s design exception process. Both the BRT and streetcar alternatives could require portions of Columbia Pike to be redesigned to adjust horizontal and vertical alignment geometry. VDOT has noted the

Task Force guidance to reduce posted traffic speeds on Columbia Pike, and does not support this recommendation. Furthermore, the study assumes a curb running system which could create complications for snow removal, as VDOT typically plows snow to the curb.

Federal Transit Administration

The project team corresponded with FTA during the development and evaluation of alternatives, and provided FTA with copies of the Project Introduction and the Description of Alternatives for review and comment. Team members also met with FTA staff to discuss Study progress. The most significant guidance received on the Columbia Pike project relates to dedicated lanes for transit: the alternatives as defined lack significant portions of dedicated transitway that characterize most projects funded through the New Starts program. FTA recommends the use of dedicated transitways because they tend to ensure reliability and travel time savings for transit capital investments. It is proposed that this recommendation be evaluated in detail as part of the preliminary engineering and environmental review phase of the project's development.

In written comments to the project team, FTA emphasized the importance of the Baseline Alternative. Any transit improvement that could be made without a major capital investment should be included in an FTA-approved Baseline Alternative. A consequence of this requirement is that as the Pike Transit Initiative moves toward New Starts funding evaluation, refinements to the Baseline Alternative may have the effect of reducing the comparative benefits of the Build Alternatives. Transit service in the corridor is nearly at capacity. Moderate expansion of the Baseline Alternative would likely result in the additional need for exclusive lanes and other major corridor improvements to ensure that reliable service is available on a consistent and regular basis.

Comments from Advisory Groups and the Public

Members of the project team attended civic association, advisory group, and other community meetings to present the progress and results of the study. Numerous comments were received relating to many aspects of the alternatives considered. A summary of comments appears in the Appendix to this document.

A specific issue that received attention was the eastern terminus of the Modified Streetcar alignment. Arlington County's Transit Advisory Committee made and approved a motion recommending that, in defining the Modified Streetcar Alternative, consideration be given to extending it to the Pentagon Metrorail station and including expansion capability in the planning for the storage/maintenance facility. During the final round of public meetings several citizens echoed this recommendation. It is recommended that the next phase of project development revisit the potential for streetcar service to the Pentagon.

7.1.3 Preferred Alternative

Based on direction received from the Policy Advisory Committee, project sponsors should consider a project that has the potential to be funded locally. This concept is further supported by indications from FTA that a project such as the Pike Transit Initiative may have difficulty receiving full funding under the competitive New Starts program.

In response to these indications, the Modified Streetcar Alternative was developed. It combines elements of the other alternatives—notably a streetcar project, with continued extensive bus service—and would both improve transit service efficiency and make a significant investment in the community.

One of the goals in defining this alternative was to develop a functional project that could be constructed for a lower total cost than the initial Streetcar Alternative. Basic features of this alternative are as follows:

- Shorter overall length extends from Skyline to Pentagon City (5 miles) as opposed to the original 6-mile line.
- The Streetcar fleet would be sized to run at constant headways throughout the day: 6 or 12 minutes, as opposed to 3 minute peak service in the original alternatives. The reduced fleet size requires smaller maintenance and storage facilities.
- The base Streetcar service would be augmented with WMATA buses to meet 3 minute peak headways, carry peak passenger demand, and supply service for trips such as those from Annandale that are more efficiently accommodated via bus service. Under the Streetcar Alternative these trips would be forced to transfer and excessively penalize patrons.

The technical analysis shows that the Modified Streetcar Alternative would make more efficient use of the projected capital and operating expenditures than the initial Streetcar Alternative in the near term prior to full build-out of Columbia Pike Initiative development plans. And, while the BRT Alternative would carry more passengers per unit of capital and operating expense, a Streetcar investment would respond more favorably to the project goals related to community and economic development.

7.2 PROJECT DEVELOPMENT PROCESS

7.2.1 Planning and Design

Environmental Process

The environmental process that project sponsors will be required to follow depends upon the project scope and whether the project would be locally funded (using a combination of private, local and state funds) or federally funded under the emerging Small Starts or New Starts funding programs. Regardless of the funding choice, a process must be followed and necessary environmental clearances must be obtained from involved localities, the Commonwealth of Virginia, and Federal agencies.

Columbia Pike is owned and maintained by VDOT. Therefore, if the project is locally funded, the project will likely be required to be in compliance with the Code of Virginia, Section 10.1-1188, Article 2, Environmental Impact Reports of State Agencies, and the Memorandum of Agreement signed by the Secretary of Natural Resources and Secretary of Transportation, which stipulates the State Environmental Review Process (SERP). Through these processes, potential environmental impacts are identified and commitments are made. The Virginia Department of Environmental Quality (DEQ) is the lead State agency for the review and approval of the Environmental Impact Reports. SERP is conducted by VDOT through a series of interagency coordination efforts. Once the lead agencies sign off and all required environmental clearances are obtained these processes are complete.

Should the project move toward federal funding, compliance with the National Environmental Policy Act of 1969, as amended (NEPA) would be required. NEPA requires federal agencies to assess the impacts of their actions on the human and natural environment. Satisfying NEPA is a prerequisite for New Starts funding to be approved. Depending upon the scope of the project, a determination of the appropriate NEPA Class of Action and documentation

(Categorical Exclusion (CE), Environmental Assessment (EA) or Environmental Impact Statement (EIS)) will be determined by the lead federal agency (in this case FTA). The federal environmental process ends with an environmental determination through a Finding of No Significant Impact (FONSI) for an EA or a Record of Decision (ROD) for an EIS.

Design Development

Engineering design should continue in parallel with the environmental review process. As design issues are resolved in greater detail, capital costs are developed with a greater degree of precision and financial plans may be developed and shared with project funding partners. More detailed engineering is required to determine the best possible lane and sidewalk configuration throughout the corridor.

Under the typical New Starts process, FTA grants formal permission to the project sponsor—usually near completion of the EA or EIS document—allowing Preliminary Engineering design to proceed. Final Design is formally undertaken when FTA issues a formal grant. Whether or not the Pike Transit Initiative is advanced as a Federal project, a similar degree of preliminary and final design will be required.

7.2.2 Funding Sources

New Starts and Small Starts Funding

As noted above, the alternatives considered in the Pike Transit Initiative are not likely to be strong contenders for New Starts funding. However, as eligibility requirements for Small Starts have not yet been conclusively defined, there could be opportunities for federal support of the preferred alternative through this program.

Other Sources of Federal Funding

Fairfax and Arlington Counties are engaged in ongoing planning, design and construction activities along Columbia Pike to improve the functionality of streets and sidewalks, and to create opportunities for investment in neighboring communities. FTA staff recommends that project sponsors continue to investigate potential federal highway funding sources for street reconstruction activities. FTA funds could be available for new vehicles through 5309 or 5307 formula grants, or for transit centers through other grants. The Federal Congestion Mitigation and Air Quality (CMAQ) and Transportation Enhancements programs may also offer sources of funds that could be applied to implement portions of the preferred alternative.

Local Funding Development

Arlington County and Fairfax County should begin to investigate potential sources of funding that would help advance the Pike Transit Initiative. Beyond the typical local revenue sources—generated through property taxes, sales taxes, or taxes on parking—other communities are developing transit projects through innovative techniques such as special tax assessment districts, value capture, public-private partnerships, and corporate sponsorships. At this point in the development of Pike transit improvements, it will also be necessary to initiate work with the business community to begin securing funds for its implementation. Whether or not federal funding is available at the outset, private support will be essential. Participants should be guided by the assumption that initial local successes would win the support of Federal and other partners.

7.2.3 Next Steps

Ongoing coordination between Arlington and Fairfax counties, VDOT, DRPT, WMATA, and others will help to ensure that any changes to street cross sections, profiles, etc. within the Pike study corridor are advanced consistently in view of the recommended future configuration of streets. Transit design work should continue into the preliminary engineering and environmental review process, allowing for the potential to implement different facets of the project using different streams of funding. Focal points for design will be a more thorough analysis of the recommended sites for vehicle storage and maintenance, and production of a set of general alignment plans.

In addition to moving forward with preliminary engineering and environmental work, the project sponsors must proceed with financial planning activities. Potential funding partners, including public and private entities, should be included as participants in this process.

The project will be developed along one of two general paths:

- A. As a locally funded project (similar to the Portland model) or
- B. As a federally funded project, following the FTA project development process.

In either case, project feasibility depends on the financial resources that could be made available. The second case has advantages because the project could be advanced under this assumption until either: 1) local sources become available for 100 percent of the project costs, or 2) FTA grants significant funding for the project. Whatever the outcome, a significant portion of the project would be completed with local funding. Since Federal funding is contingent upon many things, some of which are not under the control of project sponsors, project advancement should continue independent of New Starts funding determinations. The project sponsors must identify potential sources of funds and begin to outline a realistic framework for how and when those funds could be committed.

If federal funds are used, the project must be listed in the TIP, and there must be a clear project sponsor. The sponsor would make application to FTA to begin the NEPA process which will also serve to sustain public and agency awareness of and participation in the project. Given the scale of the project, and limits on available technology alternatives, it is appropriate to combine the NEPA process with preliminary engineering as provided in the New Starts project development process.

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