Chapter 5: Conclusions and Recommendations

5.0 INTRODUCTION

The purpose of the Alternatives Analysis phase of the Proposed Project is to evaluate the potential alternatives for transit investment along the 34th Street corridor, and to arrive at a recommendation for a LPA. As detailed in this analysis, seven alternatives were evaluated to determine how well they fulfilled the project goals and objectives. Along with this technical evaluation, input from various public agencies, elected officials, community groups, and the general public shaped the analysis and became an important indicator of project feasibility. This chapter reviews the results of the screening of alternatives and reviews the study recommendations for the LPA. Based on this analysis, and on input received, the preferred alternative should be a project that could be implemented quickly and at relatively low cost, would significantly improvement travel times along the corridor, and would expand pedestrian circulation space. The project should be consistent with federal guidelines so that it will be eligible for federal funding.

The Alternatives Analysis began with the identification of the project's primary goals and objectives: 1) to improve crosstown mobility; and 2) to minimize capital and operating concerns, reduce pedestrian congestion and improve pedestrian safety. Based on the resultant primary screening process, only one Build alternative—the BRT Alternative—satisfied the project goals and objectives enough to be advanced to the secondary screening process. Although other alternatives considered were found to have the potential to attract high ridership and would improve corridor travel time, the costs of the LRT, Streetcar, AGT, and Heavy Rail alternatives were determined to be excessively high, and the durations of construction for these alternatives were prohibitively long. However, based on its high performance in the primary screening, the BRT Alternative was advanced to the secondary screening, along with the No Build and TSM alternatives, which were advanced as required by the FTA.

The secondary screening then evaluated project alternatives based on the secondary goals and objectives: 1) to enhance community character; and 2) to minimize the impact on the built and natural environment. Based on the outcome of this secondary screening, this report recommends that the BRT Alternative be carried forward as the LPA into the preliminary engineering and environmental review phase of the project development process.

5.1 TECHNICAL SCREENING RESULTS

The alternatives screened were:

- No-Build Alternative;
- TSM Alternative;
- Build Alternative 1—BRT;
- Build Alternative 2—Streetcar;
- Build Alternative 3—LRT;
- Build Alternative 4—AGT; and
- Build Alternative 5—Heavy Rail.

The following are the key findings from the screening of each alternative.

- The ***No Build Alternative*** will be advanced to the environmental process per FTA requirements.
- The ***TSM Alternative*** serves as the baseline alternative in the analysis and will also be advanced to the environmental process per FTA requirements. The TSM Alternative scored well under many screening criteria including cost and construction duration. However, in terms of overall capacity and end-to-end travel time along the corridor, the TSM Alternative did not score as well as the other alternatives.
- The ***BRT Alternative*** (Build Alternative 1) performed best overall because of the potential for high ridership, cost-effectiveness, congruency with existing express and local bus operations, and a short construction duration. BRT will be advanced into the environmental process.
- The ***Streetcar Alternative*** (Build Alternative 2) performed well under many evaluation criteria, including ridership. However, construction costs, construction duration, and the need for a maintenance and storage facility for vehicles prevented the streetcar alternative from advancing into the secondary screening.
- The ***LRT Alternative*** (Build Alternative 3) received ratings that were similar to the Streetcar Alternative in terms of ridership and construction costs. The LRT Alternative would provide a stationary at-grade fixed transit system that typically appeals to transit riders and attracts high ridership. However, overall costs and the long construction duration prevented the LRT Alternative from advancing into the secondary screening.
- The ***AGT Alternative*** (Build Alternative 4) had the second highest construction cost, next to the heavy rail alternative. This alternative would generate substantial ridership; however, high construction costs and the long construction duration prevented the AGT Alternative from advancing to the secondary screening.
- The ***Heavy Rail Alternative*** (Build Alternative 5) was the most effective alternative with respect to ridership and travel time; however, it also had the highest construction costs and longest construction duration, which prevented it from advancing to the secondary screening.

5.2 CONCLUSION AND NEXT STEPS

The BRT Alternative (Build Alternative 1) is recommended as the LPA. It meets the project's purpose and need and goals and objectives to a greater extent than the other Build alternatives. It can be implemented at a lower cost and with a shorter construction duration than the other build alternatives, and it would allow for continued local and express bus services along the 34th Street corridor. The BRT Alternative would improve both transit service efficiency and the pedestrian environment on 34th Street.

The next steps for this project are to begin the preliminary design and environmental review processes, both of which will help to shape the project and help answer outstanding questions related to the project's physical layout and its potential environmental effects. Significant public outreach is expected as part of both of these efforts.

The preliminary design process will develop the design of the BRT Alternative in more detail. The preliminary design process will develop and define:

- A block-by-block layout of the BRT Transitway;
- The transition of the transitway from one side of 34th Street to the other to accommodate land uses;
- Station locations for local and express buses;
- The locations and designs for new pedestrian spaces;
- Parking and loading needs and accommodations, block by block;
- Changes to through and local truck routes; and
- Other changes to traffic operations (i.e., turn lanes).

After the LPA is verified, in consultation with interested public agencies, community groups, elected officials, and through feedback received at public meetings, the resultant Proposed Project will then undergo a significant environmental review, which will comply with the requirements of the City Environmental Quality Review (CEQR) process and the National Environmental Policy Act (NEPA). The first step in the environmental review will be a scoping process, which will determine the extent of the review. It is expected that the environmental review process will include:

- Public involvement in the scoping process, to ensure that all concerns are properly addressed;
- In-depth traffic analysis of traffic on 34th Street as well as any traffic impacts on nearby parallel streets, and the regional transportation network, using a state-of-the-art traffic simulation model;
- Evaluation of pedestrian crowding and safety;
- Evaluation of changes to the transit network;
- Evaluation of impacts on parking supply; and
- Evaluation of noise and air quality impacts.

In addition to the environmental documentation and conceptual engineering elements, the next phase of the Proposed Project will include the preparation of an application to FTA for federal funds. This application will include plans that highlight information specific to the financial requirements of the Proposed Project, including capital and operating costs and probable funding sources and mechanisms. These plans are dependent on the design and environmental review processes, and will be advanced along with them. The project is also expected to advance into the FTA project development process, as the New Starts program is one potential source of funds for the project.