EXECUTIVE SUMMARY

TRANSIT CONTRAFLOW FEASIBILITY STUDY

INTRODUCTION

The *Transit Contraflow Feasibility Study* evaluated the feasibility of establishing contraflow bus operations in Miami-Dade County. A contraflow bus lane is one example of a bus priority treatment. The primary concept behind bus priority treatments is to provide travel time savings for buses and more predictable travel times. Bus priority treatments are often used to increase person throughput in corridors that are either at or near vehicle capacity and where the physical and financial feasibility of widening the roadway is limited. Past bus priority efforts in Miami-Dade County included a contraflow bus lane on U.S. 1.

Metrobus Operating in Traffic Congestion along Kendall Drive

Contraflow bus lanes enable buses to operate opposite to the normal flow of traffic and are designed to take advantage of underutilized roadway capacity in the travel direction opposed to the peak period flow. Contraflow lanes are most commonly employed along one-way streets where they can create favorable routes for buses by allowing them to bypass congestion associated with a central business district (CBD) or bottleneck. Along two-way streets contraflow lanes may provide an exclusive lane for buses traveling in the peak direction by removing an underutilized lane from service in the off-peak direction.

Pie IX Boulevard Contraflow Bus Lane - Montreal

The study methodology followed in the transit contraflow feasibility study included the following components:

- Literature Research
- Evaluation of Potential Contraflow Corridors
- Feasibility of Implementing Transit Contraflow
- Public Involvement/Corridor Outreach Effort

CONTRAFLOW FEASIBILITY ASSESSMENT

Bus and high occupancy vehicle (HOV) contraflow operations in North America were examined to identify advantages and disadvantages associated with their application. Based on this research, a set of minimum standards for establishing contraflow bus operations in Miami-Dade County was developed.

In particular, the number of buses or bus passengers provides an indication of a need for bus priority treatment. A minimum threshold must be considered to ensure that a contraflow bus lane does not look under-utilized, thus creating an "empty lane syndrome." If a contraflow bus lane appears under-utilized, the operations may be viewed negatively by the public and pressure may be exerted to open the lane to general-purpose traffic. Research demonstrated there should be a minimum of 20 to 30 buses per hour or 800 to 1,200 peak hour bus passengers to justify implementing a contraflow bus lane.

The evaluation of major thoroughfares demonstrated that few transportation corridors in Miami-Dade County have a high enough level of bus service to warrant implementing a contraflow bus lane. In addition, the corridors that do have a high enough level of bus service are limited by other physical constraints such as roadway geometry, lane widths, and the presence of on-street parking. Despite these shortcomings, two corridors were selected as the most viable candidates for contraflow or other bus priority treatments:

- Biscayne Boulevard from NE 14th Street to NE 36th Street
- NW/NE 167th/163rd Street from NW 2nd Avenue to NE 15th Avenue

These two corridors were examined in detail to determine the feasibility of establishing contraflow operations. The feasibility assessment considered benefits to transit service, impacts to traffic flow, affects on parking and curb use, required improvements, and costs. Results of the feasibility analysis demonstrated that contraflow operations should not be implemented in these corridors because the benefits to transit operations would not offset the adverse impacts to the overall traffic flow. Specifically, improvements in person throughput would not be realized in these corridors.

CONCLUSIONS

Few transportation corridors in Miami-Dade County have a high enough level of bus service at this time to justify removing a travel lane from general traffic for the exclusive use of buses. Additionally, the corridors that do have a high enough level of bus service are limited by other physical constraints that preclude the development of contraflow operations.

Until bus service in congested corridors in Miami-Dade County increases to a high enough level to warrant exclusive bus lanes, bus priority treatments for mixed flow traffic should be considered. Examples of mixed traffic flow bus priority treatments that may be implemented include traffic signal priorities (bus preemption, bus signal queue jumps), improved bus bays and turnouts, bus bulbs, and improved bus stops with shelters, benches, and other amenities. These types of improvements may provide immediate benefits that enhance the experience of transit riders. In the future, as the number of bus routes and ridership increases in specific corridors in Miami-Dade County, the feasibility of dedicated bus lanes could be reexamined.

Existing Bus Stop with Amenities on Biscayne Boulevard