

Briefing on Regional Bus Priority and Rapid Bus Projects

TPB Technical Committee
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Eric Randall, DTP

Structure of Presentation



Overview of Bus Priority and Rapid Bus

Regional Rapid Bus and Bus Priority Projects

TIGER Priority Bus Project Update



TPB Previous Activities & Next Steps

What is Bus Priority?

- The purpose of bus priority is to provide travelers with quick, reliable transportation: more, faster, better, cheaper, safer!
 - 50-60% of bus time is spent in motion
 - 20% is spent at bus stops
 - 20-30% is spent at traffic signals
- All of these can be improved upon with various types of bus priority measures
- Effective bus priority requires implementation of complementary measures by both bus operators and road/runningway managers:
 - Bus Operators:
 - Limited stop service,
 - All-door boarding & off-board fare collection,
 - Dedicated vehicles.
 - Runningway Managers:
 - Transit Signal Priority (TSP),
 - Queue jumps,
 - Bus-only lanes.

Why Rapid Bus and Bus Priority?

- Rapid bus services and bus priority provide the region with the opportunity to improve current bus operations and provide customers with fast, high-quality transit services
- Both regional projects and local priority treatments offer improved bus speeds and schedule reliability, which in turn lead to:
 - Increased ridership through the improved quality of service offered to customers,
 - Cost savings through more efficient and effective operation.



Bus Priority Implementation Challenges

- Implementing bus priority measures requires considerable coordination among stakeholders.
 - Operations requirements and runway design & technology must interface successfully.
 - Trade-offs must be evaluated in roadway space and traffic flows:
 - Bus-only lanes, queue jumps, and improved bus stops or stations require dedicated roadway space.
 - Transit signal priority takes time from current signal cycles and the competing needs of parallel and intersecting vehicle traffic and pedestrian crossings
 - Engineers and operators must work together across agency goals and requirements.

Regional Rapid Bus and Bus Priority Projects

- The Washington metropolitan region has begun the implementation of a number of significant rapid bus and bus priority projects:
 - WMATA Priority Corridor Network (PCN),
 - Skip-stop service progressively introduced on major transit corridors. (Started with Columbia Pike Ride in 2003, REX in 2004, and continuing forward with 9 series in District of Columbia)
 - TIGER Priority Bus project,
 - Funding capital projects for improved bus operations and customer service. (2011 through 2015)
- Further rapid bus projects are in active consideration:
 - Remaining corridors of the WMATA PCN,
 - Montgomery County BRT: study to be released June 2011,
 - Rapid Bus on VA HOT Lanes; Corridor Analysis of I-66.

TIGER Update – *Tech Committee*

- On March 9, a TIGER Project Implementation Meeting brought together traffic engineers, planners, and bus operators:
 - Alexandria, DDOT, MDOT, PRTC, WMATA
 - VDOT; Prince George's, Montgomery, Fairfax, and Arlington Counties
- Discussed opportunities to coordinate technical procurements of TSP & RTPi, design and installation work, and traffic signage.
- *At the April 20 meeting, the TPB will be shown the review of the TIGER project given at the March 4 Tech Committee meeting:*
 - *Schedule and major expenditures,*
 - *Components: Transit Signal Priority, Real-Time Info, Bus Lanes and Queue Jumps, other parts of project,*
 - *Performance Monitoring / Goals of TIGER.*

Previous TPB Activities

(UPWP funds from Regional Studies and Technical Assistance Programs)

- Regional Bus Subcommittee *(Regional Studies: \$100,000 annually)*
 - Overview of Local and Regional Transit Services (TPB - Sep 2010)
 - Reviewed the contribution of bus to regional travel, with over 650,000 daily bus trips in the region: 2/3 on Metrobus and 1/3 on local & commuter buses.
- WMATA Priority Corridor Network *(Technical Assistance: \$300,000 in FYs 09/10)*
 - PCN Evaluation (TPB - Jan 2011)
 - Evaluated the benefits of a complete network of bus priority measures across 23 Metrobus corridors, carrying more than 250,000 customers per day.



Next Steps

(UPWP funds from Regional Studies and Technical Assistance Programs)

- Regional Bus Subcommittee *(Regional Studies: \$100,000 annually)*
 - Overview of Regional Priority Bus Projects List
 - *To be presented to Technical Committee April 2011 – Item 9 on agenda.*
- Guidelines on Priority Bus Treatments *(Regional Studies: \$110,000 in FYs 10/11)*
 - Reference guide to priority bus treatment feasibility, costs, and benefits developed in cooperation with regional traffic engineers and bus operators.
 - *To be presented to Technical Committee May 2011.*
- Multimodal Coordination / Bus Hot Spots *(Technical Assistance: \$216,000 in FY 12)*
 - Conceptual design with associated capital cost and operating time savings of arterial bus priority treatments.
 - Approved as part of 2012 UPWP in March (\$30,000 from each DOT and \$126,000 from WMATA).

