

BRT QUARTERLY

Winter 2006



BRT at TRB!

Bus Rapid Transit presentations at the 86th Annual TRB Conference

Ten sessions covering Bus Rapid Transit (BRT) and its applications will be presented at the 2006 TRB Annual Meeting, including two on BRT practices and eight on related topics. All sessions will be held at the Hilton Hotel.

“Air Quality Transformations Around the World: What to Do When the Rubber Hits the Road” (Session 133), Sunday, January 21, 8:30 am, Hilton

This workshop examines improvements in air quality achieved through transit services and is presented in two parts: the first part focuses on developments in Latin America and the second part focuses on developments in Turkey.

“Transportation Issues for Elderly and Disabled Persons” (Session 177), Sunday, January 21, 1:30 pm, Hilton

Results of recent studies on the mobility of elderly and disabled people in the United States and Europe will be presented along with guidelines for the accessibility of bus rapid transit for developed countries.

“Research on Transit Capacity and Quality of Service” (Session 235), Monday, January 22, 8:00 am, Hilton

Presentation on TCRP Project A-23A, “Bus Rapid Transit Practitioner’s Guide.”

“Innovations in Pricing: The Promise of Congestion Pricing to Address Future Needs” (Session 254), Monday, January 22, 9:30 am, Hilton

Presentation on “Policy Simulation for New Bus Rapid Transit and Area Pricing Alternatives Using an Opinion Survey in Jakarta.”

“Transportation and Economic Development, Part 2 (Part 1, Session 259)” (Session 408), Monday, January 22, 7:30 pm, Hilton

Presentation on “Walking Accessibility to Bus Rapid Transit in Latin America: Does It Affect Property Values? The Case of Bogota, Colombia.”

“Bus Rapid Transit Finance and Implementation” (Session 435), Tuesday, January 23, 8:00 am, Hilton

Topics include willingness to pay for bus priority provision, performance and lessons from implementation of BRT in the United States, evaluating bus priority and queue relocation techniques of pre-signals, and a decision support tool for BRT system deployment.

“Bus Rapid Transit” (Session 485), Tuesday, January 23, 10:15 am, Hilton

Topics include intermittent bus lane systems, the applicability to Bogota’s Transmilenio system to the U.S., sketch planning for BRT in Miami-Dade County, and a preliminary evaluation of the Los Angeles Orange Line.

“Analytic Methods for Bus Systems” (Session 546), Tuesday, January 23, 2:30 pm, Hilton

WHAT'S INSIDE

VOL 4.03.06

Second International Mass Transport Fair
Bogotá, November 20062

What is Happening at the National Bus
Rapid Transit Institute (NBRTI)3

continued on back cover

Second International Mass Transport Fair Bogotá, November 2006

On November 8-9, 2006, TransMilenio hosted the Segunda Feria Internacional de Transporte Masivo (Second International Mass Transport Fair) in Bogotá. The conference attracted an international audience, with over 1,000 registrants from Costa Rica, Germany, Australia, Chile, Argentina, United Kingdom, Ecuador, U.S., Venezuela, Korea, Indonesia, Mexico, Brazil, Spain, Peru, Spain, and Colombia. The conference agenda included more than 30 lectures, a trade show featuring over 50 international companies, and an extensive tour of the TransMilenio system and facilities.

The timing and location of the conference owe much to the success of Bogotá's TransMilenio bus network, regarded as one of the world's premier examples of Bus Rapid Transit. Phase II of the system was completed this year, adding 25 miles of dedicated busway to the 25 miles already provided through Phase I, as well as providing significant public space improvements along the trunk corridors and supplementary walking and cycling infrastructure. Following initial difficulties experienced in introducing

the new zonal system to passengers, Phase II has proven to be a success, and ridership has now risen to around 1.3 million passengers per day.

The conference opened with a presentation from Luis Eduardo Garzon, Mayor of Bogotá, who formally welcomed conference participants and briefly discussed the impacts of the TransMilenio on the city. This was fol-

lowed by a presentation from Jaime Lerner, former Mayor of Curitiba, Brazil, who discussed the role of rapid transit in the development of Latin American Mega Cities. Other informative presentations followed, discussing BRT projects in Pereira (Colombia), Jakarta (Indonesia), Guatemala, Madrid (Spain), and the Ecuadorian cities of Quito and Guayaquil. The Colombian BRT experience was summarized by

Angelica Castro of TransMilenio S.A, who discussed the implementation and impacts of TransMilenio Phase II, and Daniel Garcia, Colombian Vice Minister for Transport, who summarized the progress made in implementing TransMilenio-style BRT systems in other Colombian cities. On November 9th, Alasdair Cain of the National Bus Rapid Transit Institute at the University of South Florida gave a presentation on the applicability of the TransMilenio to the United States. Highlighting initially the significant contextual differences that exist between Bogotá and typical American cities, the presentation went on to discuss the various applicable lessons demonstrated by the TransMilenio. Touching on the subjects of passenger capacity,

choice rider attraction, capital cost, business models, urban renewal, and politics, the presentation concluded by noting that the TransMilenio has become one of the defining icons of the city, both as a rapid transit mode, and as the centerpiece of a major mobility and urban renewal program. Raising awareness of this achievement is of great importance to the attractiveness of Bus Rapid Transit in the U.S.



lowed by a presentation from Jaime Lerner, former Mayor of Curitiba, Brazil, who discussed the role of rapid transit in the development of Latin American Mega Cities. Other informative presentations followed, discussing BRT projects in Pereira (Colombia), Jakarta (Indonesia), Guatemala, Madrid (Spain), and the Ecuadorian cities of Quito and Guayaquil. The Colombian BRT experience was summarized by



Vol 04.03.06

Winter 2006

The *BRT Quarterly* is produced by the USF Center for Urban Transportation Research in collaboration with UCB Institute of Transportation Studies.

Please direct all questions or comments to:

BRT Quarterly

Center for Urban Transportation Research
University of South Florida
4202 East Fowler Avenue, CUT 100
Tampa, FL 33620-5375
813/974-3120, fax 813/974-5168
email: thole@cutr.usf.edu
www.nbrti.org

Our Mission

The mission of the National Bus Rapid Transit Institute is to facilitate the sharing of knowledge and innovation for increasing the speed, efficiency, and reliability of high-capacity bus service through the implementation of BRT systems in the United States.

Editor: Cheryl Thole
Designer: Wendy Teague

What is Happening at the National Bus Rapid Transit Institute (NBRTI)

The National BRT Institute (NBRTI) was created in 2001 to offer technical assistance and resources to the Bus Rapid Transit community. The BRT community is defined as those U.S.-based transit agencies, consultants, government agencies (federal, state, and local) that are planning, designing, engineering, building, and/or operating BRT systems in their communities. The National BRT Institute acts as staff to the Federal Transit Administration and members of the BRT community in disseminating worldwide knowledge on BRT “lessons learned” through information sharing and research. Based on its successful actions since its inception, in the Fall 2005, NBRTI was awarded a grant of \$7,000,000 over four years from the Federal Transit Administration to continue and expand the efforts of the program.

The mission of the NBRTI is to *facilitate the sharing of knowledge and innovation for increasing the speed, efficiency and reliability of high capacity bus service through the implementation of Bus Rapid Transit systems in the United States. This will be achieved by using advanced technologies and methodologies developed in the field of ITS, bus, and rail systems. The NBRTI employs a series of resources including workshops, conferences, publications, research, and knowledgeable staff to achieve the goals of the program.*

The NBRTI Program is divided into three core program areas, including those efforts that are continuing in nature and scope (Clearinghouse, Technical Assistance/Support), and that which is subject to annual discussion and activity selection (Research). These three core areas of the program are described in more detail below.

Clearinghouse

The National BRT Institute serves as a clearinghouse for all current BRT-related information, keeping current on Intelligent Transportation Systems (ITS) research and the status of BRT projects throughout the country and the world that may have application to the program. Through this clearinghouse, NBRTI helps interested users retrieve general BRT information, as well as information on the progress of the BRT projects in the U.S. and worldwide. The clearinghouse also contains up-to-date press clippings, technical reports, system evaluations, PowerPoint presentations, and other documents related to BRT. This information is available on the NBRTI web site at www.nbrti.org.

NBRTI is also responsible for developing a quarterly BRT newsletter. The newsletter includes summaries of related research, status of BRT projects in the U.S. and throughout

the world, upcoming events, guest articles, etc., and is disseminated to the public transportation community with the specific intent of providing timely, useful information to those currently working on or exploring the possible implementation of BRT systems in their communities.

Technical Assistance/Support

Technical Assistance/Conference Support

NBRTI is often called on to make presentations and/or assist new systems considering BRT applications in their communities. This involves presentations to boards or other governmental agencies at both the local and regional level, and/or meetings with agency staff to discuss technologies, options, implementation issues, etc. NBRTI is also responsible for developing, leading and presenting at regional and national BRT conferences in association with industry partners including APTA, TRB, ITE, and ASCE. NBRTI pulls from the prior experiences of BRT community members to provide better assistance to interested transit agencies.

BRT Curriculum for Graduate and Undergraduate Level Public Transportation/Urban Planning Course

Throughout the country, university engineering and urban planning programs offer classes in public transportation. It is the intent of NBRTI to develop a BRT module that provides an overview of BRT and its applications. The module will consist of information materials (PowerPoint presentation, lesson plan, sample test questions) for an approximate three hour class. It is envisioned that this module will be used as part of a public transportation/urban planning/engineering course. This module will be updated annually to provide the latest information and images available.

BRT Peer-to-Peer (BRT P2P) Program

NBRTI has proposed the development of a BRT Peer-to-Peer (BRT-P2P) program. It is anticipated that the BRT-P2P program can be available to the public sector in 2007. The program is envisioned to provide free, short-term technical assistance regarding BRT planning, design, funding, and operations to the transportation industry and will sponsor travel, communications, and associated costs for BRT peer experts to provide or gain knowledge regarding BRT. Peer experts will be designated based on geography and specific technical expertise.

Scanning Tours

Scanning tours of BRT systems in the U.S. and worldwide are organized as necessary to collect and share informa-

tion. This is useful to politicians, board members and transit professionals within the BRT community to provide them with hands-on experience and the opportunity to establish relationships for the continued sharing of knowledge. In conjunction with scanning tours, as well as during other site visits conducted by NBRTI staff, existing and new still photo and video footage of BRT facilities and services are collected. A library of these resources is available on the NBRTI website. Several national and international tours will be developed and offered each year.

Visual Simulations

NBRTI will develop generic visual simulations of BRT services and amenities to be used as educational tools at public workshops and forums. These visualizations will include generic simulations of queue jumps, transit signal priority, precision docking, bus operations within different running ways (exclusive, mixed traffic, separated, etc.), ITS technologies, facilities, fare technologies, and other beneficial scenarios.

Project Evaluations

NBRTI conducts and/or assists in the evaluation of current and future BRT projects as they are completed through on-board surveys, performance evaluations, and development of “lessons learned” summaries. This includes assistance in developing and evaluating proposals and participation in technical advisory review committees. As possible, with the creation of the “Small Starts” funding category, NBRTI will develop procedures for/and initiate significant “before” data collection activities to help preserve this necessary

data and to better allow for more accurate before and after analysis.

BRT Research

The National BRT Institute conducts new research in areas related to BRT and develops “best practices” manuals and tools that assist BRT community members. Topic areas for further research may come from FTA, through Committees of TRB or APTA, or directly from the BRT community. Currently, the NBRTI has begun research on two topics areas: image perception, and the impacts of BRT on land use/development. The research regarding the importance of image and perception is being conducted in an effort to quantify the impact of different BRT system design elements on image, and assess the extent of the relationship between positive image and ridership gain. Research regarding the different impacts of BRT on surrounding land uses will be conducted in an effort to provide a greater understanding of this relationship. An effort to quantify the impacts of BRT on surrounding land use, and a comparison of these impacts to rail corridors may be conducted as well.

One other research activity conducted by NBRTI is the update of the “Characteristics of Bus Rapid Transit for Decision-Making (CBRT),” which was first published by the FTA in August 2004. This resource is intended to provide transportation planners and decision-makers with the tools to help make investment decisions that best respond to local needs.

BRT at TRB—continued from cover

Presentation on “VISSIM-Based Simulation Approach to Analysis of Synchronization Between Operation and Traffic Controls in Beijing Bus Rapid Transit System.”

“Transportation Planning and Safety in China and Thailand”
(Session 656), Wednesday, January 24, 9:30 am, Hilton

Presentation on “Strategies Enhancing Bus Rapid Transit Development In Asean Developing Cities—A Case Study On Bangkok Metropolitan Administration Project.”

“Transportation Planning and Safety in Developing Countries”
(Session 657), Wednesday, January 24, 9:30 am, Hilton

Presentation on “Planning, Implementation, and Operation of Bus Rapid

Transit Systems: Cases of Quito, Bogotá, León, México City, Jakarta, and Beijing.”

Session	Title	Time
133	Air Quality Transformations Around the World: What to Do When the Rubber Hits the Road	Sun., 8:30am - 5:00pm
177	Transportation Issues for Elderly & Disabled Persons	Sun., 1:30 - 5:00pm
235	Research on Transit Capacity and Quality of Service	Mon., 8:00 - 9:45am
254	Innovations in Pricing	Mon., 9:30am - 12:00pm
408	Transportation and Economic Development, Part 2 (Part 1, Session 259)	Mon., 7:30pm - 9:30pm
435	Bus Rapid Transit Finance and Implementation	Tues., 8:00 - 9:45am
485	Bus Rapid Transit	Tues., 10:15am - 12:00pm
546	Analytic Methods for Bus Systems	Tues., 2:30 - 5:00pm
656	Transportation Planning/Safety in China & Thailand	Wed., 9:30am - 12:00pm
657	Transportation Planning/Safety in Developing Countries	Wed., 9:30am - 12:00pm