



BRT: What is it & Where Does it Fit?

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BRT: Bus Rapid Transit

- **Flexible**, permanently integrated, high performance system with a quality image and a strong ID
- Package of components appropriate to current and future:
 - **Markets served**
 - **Physical, operating environment**

BRT System Elements

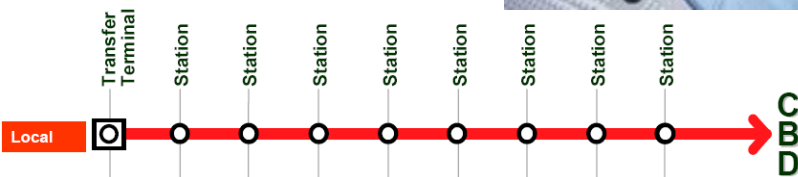
Vehicles

Running Ways

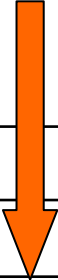
Stations & Terminals

Systems

Service Plan



Flexibility of BRT

Simplest	Stations	Running Ways	Service Plan	Vehicles	Systems
e.g., Rapid Bus BRT "Lite" 	"Super" Stops, Real Time Pass. Info., Unique Shelters	Mixed Traffic, Queue Jumpers, "Virtual" Bus Lanes	Trunk/Feeder: Single All-Stops Trunk Line	Buses with Unique Livery's, Rte. ID's, Head Signs	Digital Comm's., Electronic Fare Boxes
Highest Capacity, Performance e.g., Transmilenio	High Platform Stations, P/R, Amenities, Services	Fully Grade-Separated Transitway	Combo.: All-Stops; On-Line Expresses; Integrated Feeder/Trunk	Hybrid, Guided Specialized Vehicles	Central Control Room, TSP, CAD, Off-Board Fare Collection, Smart Cards

BRT: Infinite Possibilities, But Must Have Following Attributes:

- **Branded, fully integrated system**
- **High speed, reliability**
 - **Maximum feasible, justifiable dedicated running way for marketing, speed, reliability**
 - **Easy to use:**
 - **High service levels at all times**
 - **Simple network structure**
 - **Pervasive passenger information**
- **Attractive, high over-all quality**



Without these attributes, “BRT is only old wine in a new bottle”

- **Where Does BRT Fit?**
- **Is it just another type of bus route?**
- **What functions does BRT perform?**

Trend Everywhere to Multi-Layered Transit Networks

- Different types of services (“products”) serve different travel markets, e.g.:
 - Peak work *versus* other trip purposes
 - Long trip length, CBD-oriented *versus* short trip length, high turn-over
 - Basic access and mobility for all *versus* premium to compete with private vehicles
- Integration among modes key to success
 - Coverage, schedules, fares, passenger information
 - Branding

New York City Public Transport

- **Local, limited stop bus**
- **Select Bus, BRT Lite**
- **Subway**
- **Commuter Bus**
- **Commuter Rail**
- **Ferries**

Local Bus Services

Provide basic mobility and connectivity

- Cover all major arterials in metro area
- Feed other, higher order services
- Medium length trips, some turnover
- Service times: All day
- Stops: Spacing as low as every 100 meters
 - May operate on “hail” basis in off-peak
- Flexible, “workhorse” vehicles feature mix of standing and seated capacity; different sizes
- Simple stops, some with shelters

New York City Local Bus



Commuter Express

Provide high speed, comfort service; Serve long, peak work trips oriented to largest activity nodes

- Serve areas with relatively low residential densities
- Longest, mostly work trips oriented to very large (100,000 + jobs), traditional CBD's
- Little passenger turn over
- Service times: Heavily peak-oriented
- Stops: Often non-stop from major suburban intermodal terminals or transit centers
- Vehicles provide comfortable seating and high top-end speed

NYCT Express Bus



Rapid Transit

Serve high volume & turnover markets; High performance; Induce/support TOD

- Operate in major corridors
 - Significant passenger turn-over
 - Major traditional CBD with >100,000 jobs at one end
- Serve medium-to-long trips
 - Work and other purposes
- Service times: All day, high frequency
- Stops: 1-2 KM stop spacing
- High-capacity vehicles with unique ID
 - Market-driven mix of vehicle seating and standing
 - Multiple door boarding through wide doors
- Off-board fare collection
- ITS-driven passenger information
- Station/terminal development nodes



CANAL

Canal St
Lisen Avenue To 24

EXIT

Exit Lisen Avenue To 24

Canal St

For Your Safety...
Watch the gap when you board and exit the train



For Your Safety...
Watch the gap when you board and exit the train

NYCT “Select Bus” BRT Lite



Seoul Korea

4-types of Bus Services:

Trunk - Feeder - Circular - Wide Area

- Regional connection between suburbs and downtown area
- Ensuring operation speed and punctuality

Trunk
lines

Blue
bus



- feeder to trunk lines and subways
- Meeting local traffic demand

Feeder
lines

Green
bus



- Local lines within the downtown area
- Serving for business and shopping trips

Circular
lines

Yellow
bus



- Express connection between satellite cities and downtown area
- Absorbing passenger car commuters

Wide area
lines

Red
bus





Red downtown to major roads

Blue : major trunk roads



Green subway to nearby residential areas

Yellow circular in downtown or subcenters

Market, Attributes Closer To Rail Rapid Transit Than Conventional Local Bus

- Market
 - longer trips
 - all purposes and times of day;
 - highest volume corridors;
 - serves large CBD's, major intermodal terminals;
 - choice as well as “captive” riders
- Attributes
 - running way dedication
 - span, level, quality of service
 - stop spacing
 - off-board fare collection
 - ITS intensive
 - Integrated, branded system