On-Street Priority Transitways
Sustainable Transport Using Available Right-of-Ways

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The Urban Transit Challenge
• Increase urban mobility & transit speed
• Use available rights-of-way
• Minimize costly tunneling and elevated structures
• Integrate transit with communities
• Improve livability of urban public spaces.

A Sustainable Approach: On-Street Transitways
• LRT, Bus, or Mini-Bus
• Semi-Exclusive Lane or Guideway:
  • No other traffic in lane
  • Pedestrians and cars cross at-grade
• Enhanced Stations or Stops
• Limited Underpasses & Overpasses.

Cairo, Egypt
On-Street BRT Transitways

- Curitiba, Brazil
  - Extensive Busway System
- São Paulo, Brazil
  - Four Distinct Busways
- Quito, Ecuador
  - Electric Trolleybus Transitway
- Bogotá, Colombia
  - High-Capacity Transitway.
On-Street LRT Transitways
Challenges for Implementation

- Finite space (width) available - must accommodate:
  - Transitway & Station Platforms
  - Traffic Lanes & Turning Lanes
  - Sidewalks & Pedestrian Amenities
  - Parking
  - Landscaping

integration between elements - need to coordinate:
- Transit and traffic movements,
- Transit with pedestrian circulation,
- Increased pedestrian activity and traffic,
- Business concerns (esp. parking)
Key Planning & Design Issues

- Placement of Transitway:
  - Center Of Street (median)
  - Both Sides of Street (curb lanes)
  - One Side of Street
  - Other Configurations

Ciudad de México

Sao Paulo, Brasil

Quito, Ecuador
Key Planning & Design Issues

• Station Platform Placement:
  • Center, Side, On-Sidewalk, Other
Key Planning & Design Issues

- Access for Emergency Vehicles
- Access to Utilities & Potential Relocation
- Business Concerns:
  - On-Street Parking
  - Visibility of Facades
  - Access to Abutting Properties (curb cuts).

Operational Issues

- All-Stop vs. Express & Local Service
- Left or Right Turns Within or Across Transitway?
- Signal Preemption
- Effect of Fare Payment and Boarding on Operations & Capacity.

Planning & Design Opportunities

- Enhanced Paving
- Attractive Barriers (for Traffic & Pedestrians)
- Landscaping, Trees, Street Furniture
- Pedestrian-Friendly Building Facades
- Supportive Urban Design
- Transit-Oriented Land Uses.
Potential of On-Street Transitways

- Enhance transit speeds, capacity, & comfort within available rights-of-way
- Provide highly visible transit: (vehicles, guideway, and stations)
- Opportunity to upgrade street design: (paving, signage, & landscaping)
- Potential for incremental implementation
- Guide improved patterns of development.
On-Street Priority Transit Facilities

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